REPUBLIC OF
THE MARSHALL ISLANDS

YACHT CODE

MARITIME ADMINISTRATOR

Jan/2020 **MI-103**

NOTICE

This complimentary printing of the Yacht Code (MI-103) will not be automatically supplemented, and therefore, may be **out of date**.

This publication is designed to be read and used as an electronic document. It includes hyperlinks to referenced publications and internal sub-sections. The link to the updated version of this publication, and any supplements thereto, may be found at www.register-iri.com on the MI-300 dedicated webpage.

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YACHT CODE
(MI-103)

ISSUE AND REVISION HISTORY

Rev	Date mmm/year	Description	Entered By	Entered mm/dd/yy
2020 series Rev. 1	01/20	Updated Ch. II §17.1.1 Life-Saving Appliances; updated Ch. II §17.1.2 Launching Appliances; updated Ch. II §27.4 Instructions for Onboard Maintenance; updated Ch. IV §9.1.1.3 Life-Saving Appliances; updated Ch. IV §9.1.2.2 Launching Appliances; and updated Ch. IV §19.2 Instructions for Onboard Maintenance.	M. Sparks	01/01/20
2017 series Rev. 1	04/17	Removed Ch. I, §2.1.5 Private Yachts; updated Ch. I, §2.2 Effective Date; updated Ch. I, §2.5.2; added Ch. I, §2.11 Carriage of Supernumeraries; added Ch. I, §2.12 Supplement to the Code; updated Ch. I, §3.0; added definition of LOA; updated definition of Garbage, updated definition of Passenger, updated definition of Social Guest, updated definition of Supernumerary, and updated definition of Statement of International Convention Voluntary Compliance; edits to Ch. II, §1.3.2.2 MARPOL Annex IV; updated Ch. II, §1.3.3.3 MARPOL Annex V; updated Ch. II, §1.5, BMW Convention; edits to Ch. II, §1.13.3 MLC, 2006; edits to Ch. II, §9.11.4 Water Service; edits to Ch. II, §9.12.4(d)(e)(f)(g)(h) Sleeping Accommodation; renumbered Ch. I, §9.12 Sleeping Accommodation; minor edit to Ch. II, §9.14.2 Sanitary Facilities; minor edit to Ch. II, §10.1.7 Stowage of Gasoline, Aviation fuel, and other Highly Flammable Liquids; edits to Ch. II, §10.4.1 Fire Control Plans; renumbered Ch. II, §10.4 Fire Control Plans; removed Ch. II, §11.3.1 Ventilation; update to Ch. II, §11.3.9 Ventilation; renumbered Ch. II, §11.3 Ventilation; updated Ch. II, §11.4.3 Means to Escape; updated Ch. II, §13.3.1 Steering Systems; added Ch. II, §13.5.4.5 Batteries; updated title of Ch. II, §27.0 Safe Working Practices; edits to Ch. III, §1.0 Statutory and National Requirements; updated Ch. III, §1.3.2.2 MARPOL Annex IV; updated Ch. III, §1.3.3.3 MARPOL Annex V; minor edit to Ch. III, §1.10.2.2 Classification and Certification; edits to Ch. III, §1.13.3 MLC, 2006; updated title of Ch. III, §7.0 Safe Working Practices; updated Ch. IV, §1.3.2.2 MARPOL Annex IV; updated Ch. IV, §1.3.3.3 MARPOL Annex V; updated Ch. IV, §1.5	M. Sparks	04/01/17

		BWM Convention; minor edit to Ch. IV, §4.13.3 Bulwarks and Guard Rails; edits to Ch. IV, §6.2.1 Fire Control Plans; updated Ch. IV §6.3.10, Ventilation; updated Ch. IV, §6.4.3 Means of Escape; updated Ch. IV, §7.3.1 Steering Systems; added Ch. IV, §7.5.4.5 Batteries; minor edit to Ch. IV, §13.0 Publications, Table 23; updated title of Ch. IV, §19.0 Safe Working Practices; minor edit to Ch. V, §2.0 Marine Guidelines; updated Annex 1, §10.0 Compliance Verification, Review, and Evaluation; updated Annex 4, §2.3 & §2.4; & updated TOC.		
2014/2015 Series Rev. 2	10/15	Updated extensively throughout and completely re-formatted; renumbered and minor edits incorporated; note particularly revised §s 17.2.4 (Rescue Boats) & 11.1.5 (Table 8) in Ch. III & new Ch. V on Yachts Engaged in Trade; TOC updated to reflect above changes	M. Sparks	10/30/15
2014/2015 Series Rev. 1	02/14	Updated all sections to reflect that the Code applies to all commercial yachts registered in the RMI; added new §16.2.6 on additional fire appliances; removed references to semi-annual in §32.0; updated table and footnotes in Annex 1; TOC updated to reflect above changes	M. McConnell	02/19/14
2012 Series Rev. 4	12/13	Updated table and footnotes in Annex 1	M. McConnell	12/02/13
2012 Series Rev. 3	11/13	Removed references to Authorized Surveyor and Yacht Nautical Inspector; added references to passenger yachts throughout; added new item 17.3; updated §32.0; updated table in Annex 1	M. McConnell	11/01/13
2012 Series Rev. 2	06/13	Extensively revised in all sections and section on MLC, 2006 added; TOC updated to reflect above changes	M. McConnell	06/17/13
2009 Series Rev. 1	12/09	Revised the definition of "Private Yacht" (page 9); updated form MI-105M in Annex 9 (pages 108-109); updated Medical Chest in Annex 10 (pages 110-126); updated header in form MI-127 in Annex 12 (page 128); updated TOC to reflect repagination.	M. McConnell	12/10/09
2009 Series	11/08	Annex 4: numbered paragraphs and replaced previous 7th paragraph with new paragraphs 1.7 & 1.8 (page 99); corrected deck ratings and engine personnel requirements in Category 2 in table on page 100 & deleted previous page 101 containing table on MI Yacht Certificates of Competency; updated TOC to reflect repagination.	M. McConnell	11/11/08
-	10/08	Original	M. McConnell	10/15/08

YACHT CODE

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CHAPTER I:

INTRODUCTION, GENERAL APPLICATION, AND DEFINITIONS

1.0 INTRODUCTION

The Republic of the Marshall Islands (RMI) Commercial Yacht Code was originally published in October 2008. It was based on regulatory standards available to the industry at the time of its writing and was developed to address the incompatibility of certain merchant ship standards with the intended use, scope of operations, and safety needs particular to yachts.

The 2008 RMI Commercial Yacht Code was replaced in its entirety by the RMI Yacht Code published in June 2013 (hereinafter, "the Code" or "this Code"). The Code was developed to further address the design, size, and technological advances which have taken place within the yachting industry and to further ensure the safety and protection of all persons on board yachts and the marine environment.

The Code outlines the requirements for the construction, machinery, equipment, and stability of yachts registered in the RMI. Further, this Code, in conjunction with the relevant international conventions to which the RMI is a party, sets the standards and substantial equivalencies for safety, security, pollution prevention, and seafarer accommodations appropriate to the size of the yacht, taking into consideration instances where it is not reasonable or practicable to comply fully with international conventions.

This Code is periodically revised by the RMI Maritime Administrator (hereinafter, the "Administrator") in accordance with existing international conventions and codes to which the RMI is a party to the extent that it is reasonable and practicable to apply them, RMI laws and regulations, as well as practical experience.

Compliance with the Code does not obviate the need for compliance, where applicable, with the RMI Maritime Act 1990 (hereinafter, the "Maritime Act"); the RMI Maritime Regulations; RMI Marine Notices and Technical Circulars; other Administrator polices or requirements; and/or local authorities' licensing, permitting, chartering, or other regulatory requirements.

The RMI has submitted this Code, as amended, to the Secretary-General of the International Maritime Organization (IMO) as an equivalent arrangement as it applies to yachts under the provisions of the International Convention for the Safety of Life at Sea (SOLAS); International Convention for the Prevention of Pollution from Ships (MARPOL); International Convention on Load Lines, 1966 (ILLC); International Convention on Tonnage Measurement of Ships, 1969 (ITC); and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978, as amended (STCW). Reference may be made through the IMO Global Integrated Shipping Information System (GISIS).

2.0 GENERAL

2.1 Application

2.1.1 Commercial Yachts

All commercial yachts, regardless of gross tonnage (GT), shall comply with Chapters I and II of the Code.

2.1.2 Passenger Yachts (PAXYs)

All PAXYs, regardless of GT, shall comply with Chapters I and III of the Code.

2.1.3 Private Yachts Limited Charter (PYLCs)

All PYLCs of 18 meters (m) or more in length overall and less than 500 GT shall comply with Chapters I and IV of the Code.

2.1.4 Yachts Engaged in Trade (YETs)

All private yachts of 24 m or more in Load Line Length that have been authorized by the Administrator to operate as a YET shall comply with Chapters I and V of the Code.

2.2 Effective Date

This Code became effective June 2013. The current revision of the Code shall take effect immediately upon its publication in April, subject to supplements per §2.12.

2.3 Responsibility

It is the responsibility of the owner or the owner's representative to ensure that a yacht is properly maintained, inspected, and certified in accordance with the Code and all other applicable RMI laws and regulations.

2.4 Equivalent Standards

.1 The Administrator acknowledges that a yacht may have been designed and/or constructed to standards other than as provided in this Code. Such standards may provide levels of safety, suitability, and fitness of purpose equivalent to the requirements of this Code. Accordingly, the owner or authorized representative may apply to the Administrator for consideration of such standards as an equivalent to the requirements of this Code and other Administrator requirements or standards.

.2 Exemptions and Equivalencies:

(a) To the extent provided for herein, exemptions and/or equivalencies to the provisions of the Code are to be authorized by the Administrator at its sole discretion.

(b) A recommendation for an exemption or equivalency shall be made to the Administrator, in writing making use of the *Application Form for RMI Yacht Code Exemptions and Equivalencies* (YTEC-02), by the Appointed Representative (AR) or Classification Society certifying the yacht and be accompanied by supporting evidence for justification, including, but not limited to:

(i) reasons why following the Code, as provided, is impractical;

(ii) confirmation that the proposal does not adversely affect, or decrease, the safety of the persons on board or the yacht;

(iii) drawings; and

(iv) details of materials or equipment provided.

2.5 Operational Limitations

.1 Subject to the size, suitability for intended use, and degree of compliance with the Maritime Act (MI-107), Maritime Regulations (MI-108), and this Code, a commercial yacht, PAXY, or

PYLC may be considered for the issuance of a Certificate of Registry (COR) or in the case of a YET, may be considered for the issuance of a Temporary COR, allowing it to operate under one (1) of the following Operating Categories:

(a) Category 2 - up to 60 nautical miles (NM) from a safe haven;

(b) Category 1 - up to 150 NM from a safe haven; or

(c) Category 0 - unrestricted service.

.2 Depending on the yacht and its intended use, a yacht may be restricted to less than the above specified limits. All limitations or restrictions will be recorded on the yacht's Compliance Certificate and Minimum Safe Manning Certificate (MSMC).

.3 In order to be registered for a particular Operating Category, a yacht shall comply with all the specific requirements for that Operating Category, to the satisfaction of the Administrator. Under no circumstances, however, shall a yacht be allowed to exceed the specified operational limitations except for in exceptional circumstances provided that the yacht follows any procedures prescribed by the Administrator.

.4 Polar Regions Operations:

(a) Yachts that are operating in Polar Regions shall meet the applicable requirements of the yacht's Classification Society or AR, which shall specifically address stability conditions.

(b) In addition to §2.5.4a above, the following IMO publications shall be used as guidance:

(i) IMO Assembly Resolution A.1024(26) – *Guidelines for Ships Operating in Polar Waters*;

(ii) IMO Circular MSC.1/Circular.1185 – *Guide for Cold Water Survival*; and

(iii) IMO Assembly Resolution A.999(25) – *Guidelines on Voyage Planning for Passenger Ships Operating in Remote Areas*.

(c) Beginning 01 January 2017, yachts operating in Polar Regions shall comply with the requirements of the International Code for Ships Operating in Polar Waters (Polar Code), to the satisfaction of the Administrator.

2.6 Coastal State Requirements

Coastal States may impose additional requirements on yachts entering their sea areas, ports, and harbors. All RMI registered yachts shall comply with these local requirements, as applicable.

2.7 Name and Port of Registry

The Port of Registry may be either Jaluit or Bikini. The name and Port of Registry of the yacht shall be permanently marked on the stern of the yacht and shall be in a contrasting color and distinctly visible. The letters or symbols shall not be less than 150 millimeters (mm) in height.

2.8 Administrator Notices, Advisories, and Circulars

.1 The Administrator publishes various documents in order to clarify its policies and requirements regarding international conventions and codes and national law and regulation, or to bring relevant issues, such as piracy or increased port State control inspections in various ports, to the attention of RMI registered yachts, shipowners, and operators. These publications include, but are not limited to:

(a) Marine Notices (MNs);

(b) Marine Guidelines (MGs);

(c) Technical Circulars (TCs);

(d) Marine Safety Advisories (MSAs);

(e) Ship Security Advisories (SSAs);

(f) Yacht Safety Advisories (YSAs); and

(g) Yacht Technical Circulars (YTCs).

.2 Attention shall be paid to the length and/or GT of the yacht for applicability of these publications.

.3 The most up-to-date version of these publications and many others can be found at: www.register-iri.com. However, the Administrator also sends all updates via email. Therefore, it is of the utmost importance to ensure that any changes in contact details be submitted to the Administrator using the *Declaration of Company* (MI-297A) and/or *Combined Declaration* (MI-297B) forms, as applicable, via the general yacht email address at yachts@register-iri.com.

2.9 Yacht Contact Email Addresses

In an effort to expedite incoming inquiries, requests, and notifications, the Administrator has created yacht specific contact email addresses which can be found here or in *Yacht Contact Email Addresses* (YSA 1-12).

2.10 Yachts Taking Part in Races

For the requirements for yachts whilst racing or whilst in passage directly to or from a race, see *Yachts Participating in Races* (MN 2-011-48).

2.11 Carriage of Supernumeraries

Carriage of supernumeraries, as defined in §3.0 of this chapter, is permissible subject to the provision of sufficient life-saving appliances and accommodations and subject to the supernumerary undergoing onboard familiarization training. Supernumeraries should not be assigned duties on the muster list for any emergency related functions.

2.12 Supplements to Code

This Code contains updates through the Effective Date listed in §2.2 above and may be amended by supplements published by the Administrator from time-to-time. Such supplements shall be deemed to be incorporated into this Code and shall take full force and effect as of the date of their publication by the Administrator or as of a future effective date if stated in the supplement.

3.0 DEFINITIONS

The following definitions apply to terms as used throughout this Code:

"2010 FTP Code" means the International Code for the Application of Fire Test Procedures, 2010 as defined in SOLAS regulation II-2/3.23, as amended;

"Administrator" means the RMI Maritime Administrator;

"Administrator or its representative" means the Administrator or an AR or Classification Society, as appropriate;

"Appointed Representative (AR)" means an Administrator appointed agent or representative who conducts statutory surveys of unclassed yachts for the issuance of statutory certificates; initial, annual, and renewal surveys and Compliance Verifications; and other services in accordance with written agreement. For additional details please see *Organizations Acting on Behalf of the RMI Maritime Administrator* (MG 2-11-15);

"Approved Type" means, with respect to materials or equipment, that it is accepted by the Administrator on the basis of the approval of such materials or equipment by another administration or an organization that is formally recognized by the Administrator;

"Aviation Fuel" means fuel used for aircraft engines;

"Aviation Inspection Body (AIB)" means an authority recognized by the Administrator responsible for the verification and certification of helicopter landing areas. For additional details please see MG 2-11-15;

"Bridge" means the control station occupied by the officer of the watch who is responsible for the safe navigation of the yacht;

"BS" means the British Standards;

"Bulkhead deck" means the uppermost continuous deck of a yacht to which all main transverse watertight bulkheads are carried;

"Charter" means an agreement between the owner or managing agent and another party that allows that party, referred to as the "charterer," to use the yacht;

"Classed yacht" means a yacht that has been issued and maintains a valid Certificate of Classification for hull and machinery by a Classification Society;

"Classification Society" or **"Class"** means an organization that establishes and applies technical standards in relation to the design, construction, and survey of marine vessels. Only those Classification Societies that have been approved as a Recognized Organization (RO) by the Administrator may carry out services under the RMI Yacht Code for an RMI flagged yacht. For additional details please see MG 2-11-15;

"Code" means the RMI Yacht Code (MI-103);

"Commercial yacht" means any yacht registered as per Chapter 2, Part V, of the RMI Maritime Act (MI-107) that is described on the COR as a commercial yacht and therefore may be engaged in trade, commerce, or chartered carrying no more than 12 passengers;

"Compartment" means all living and working spaces easily accessible from one to another on any one (1) level;

"Compliance Certificate" means a national certificate that confirms that the yacht meets the applicable requirements of the RMI Yacht Code;

"Compliance Verification" means an initial, annual, or renewal inspection carried out by an AR to verify that the qualifications and certification of the crew and the actual condition of the yacht and the certificates issued to it are in compliance with the requirements of the RMI Yacht Code and any international conventions, as applicable;

"Control stations" mean those spaces in which the yacht's radio or main navigating equipment or the emergency source of power are located or where the fire recording or fire control equipment is centralized;

"COR" means Certificate of Registry;

"Crew" means collectively the persons other than officers, or the Master, serving in any capacity on board a vessel;

"Deadlight" means a watertight cover fitted to the inside of windows and side scuttles;

"Down-flooding angle" is the angle of heel at which openings in the hull, superstructure, or deckhouses, which cannot be closed weather-tight, immerse. Small openings through which progressive flooding cannot take place need not be considered as open;

"Efficient" in relation to a fitting, piece of equipment, or material, means that all reasonable and practicable measures have been taken to ensure that it is suitable for the purpose for which it is intended to be used;

"Emergency source of electrical power" means a designated source of electrical power intended to supply the emergency switchboard in the event of failure of the main source of electrical power;

"Emergency switchboard" means a switchboard that, in the event of failure of the main electrical power supply system, is directly supplied by the emergency source of electrical power or the transitional source of emergency power and is intended to distribute electrical energy to the emergency services;

"EN" means the European Norm;

"EPIRB" means a satellite emergency position-indicating radio beacon, being an earth station in the mobile-satellite service, the emissions of which are intended to facilitate search and rescue operations, complying with performance standards adopted by the IMO, and is capable of:

(a) floating free and automatically activating if the yacht sinks;

(b) being manually activated; and

(c) being carried by one (1) person;

"Excursion" means a trip of limited duration, operating in a restricted area within close proximity to shore originating from the nominated departure point, in favorable weather conditions, and subject to sufficient life-saving appliances being provided. No passengers would be berthed overnight on board during this time;

"Float-free launching" means that method of launching a life-saving appliance whereby it is automatically released from a sinking yacht and is ready for use and/or activated;

"Freeboard" means the distance measured vertically downwards amidships from the upper edge of the deck line to the upper edge of the related load line;

"Freeboard deck" means, as defined in Annex I of the ILLC, the deck that is normally the uppermost complete deck exposed to the 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 yacht are fitted with permanent means of watertight closing;

"FSS Code" means the International Code for Fire Safety Systems, as defined in SOLAS regulation II-2/3.22;

"Garbage" means all kinds of victual, domestic, and operational waste as defined in MARPOL Annex V, excluding fresh fish and parts thereof, generated during the normal operation of the yacht and liable to be disposed of continuously or periodically from a yacht;

"Gross tonnage (GT)" unless otherwise specified, means the gross tonnage calculated in accordance with the tonnage measurement regulations contained in Annex I to the ITC, or any successor convention; the gross tonnage for vessels covered by the tonnage measurement interim scheme adopted by the IMO will be the gross tonnage which is included in the REMARKS column of the International Tonnage Certificate;

"Hazardous space" means a space or compartment in which combustible or explosive gases or vapors are liable to accumulate in dangerous concentrations;

"Helicopter Landing Area (HLA)" means a designated area and associated facilities certified for intended landing or take off of a helicopter;

"ILLC" means the International Convention on Load Lines, 1966, as amended;

"ILO" means the International Labour Organization, a specialized agency of the United Nations;

"Immersion suit" means a protective suit as defined in the International Life-Saving Appliance (LSA) Code Chapter II/2.3, as amended, which reduces the body heat loss of a person wearing it in cold water;

"IMO" means the International Maritime Organization, a specialized agency of the United Nations;

"International convention or code" means any international framework for the design or operation of a vessel that the RMI is a party to and with which it requires vessels under its flag to comply;

"International voyage" means a voyage outside the territorial waters of the RMI;

"IS Code" means the International Code on Intact Stability, 2008, as amended;

"ISM Code" means the International Safety Management Code, as amended;

"ISO" means the International Standards Organization;

"ISPS Code" means the International Ship and Port Facility Security Code, as amended;

"Launching appliance" means a provision for safely transferring a lifeboat, rescue boat, life raft, or inflated boat, from its stowed position to the water and recovery where applicable;

"Length" means, unless specified otherwise, Load Line Length;

"Length Overall (LOA)" means the distance from the forward side of the stem to the aftermost side of the stern

"Lifeboat" means a lifeboat complying with Chapter IV of the LSA Code;

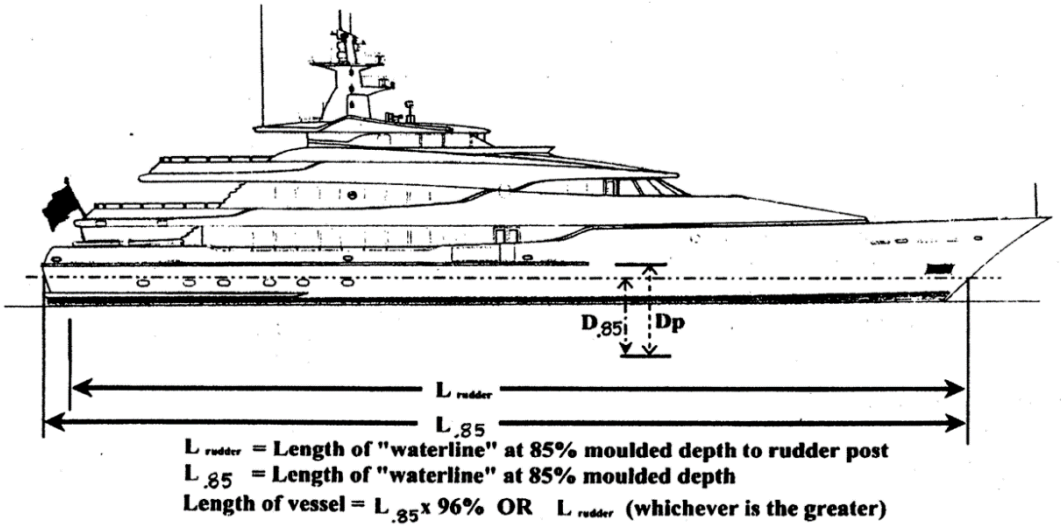
"Life buoy" means a life buoy complying with Chapter II/2.1 of the LSA Code;

"Life jacket" means a life jacket complying with Chapter II/2.2 of the LSA Code;

"Life raft" means a life raft complying with Chapter IV of the LSA Code;

"Line throwing appliance" means an appliance complying with Chapter VII/7.1 of the LSA Code;

"Load Line Length" means, as defined in Annex I of the ILLC, the length which shall be taken as 96% of the total length on the waterline of a yacht at 85% of the least molded depth measured from the top of the keel, or the length from the fore-side of the stem to the axis of the rudder stock on that waterline, if that be greater. See following figure;



"Low flame spread" means that the surface thus described will adequately restrict the spread of flame, this being determined in accordance with the 2010 FTP Code;

"LSA Code" means the International Life-Saving Appliances (LSA) Code, as amended;

"Machinery spaces" means all machinery spaces of Category A and all other spaces containing propelling machinery, boilers, oil fuel units, steam and internal combustion engines, generators and major electrical machinery, oil filling stations, refrigerating, stabilizing, ventilation and air conditioning machinery, and similar spaces, and trunks to such spaces;

"Machinery spaces of Category A" means those spaces and trunks to such spaces that contain:

(a) internal combustion machinery used for main propulsion; or

(b) internal combustion machinery used for purposes other than main propulsion where such machinery has in the aggregate a total power output of not less than 375 kilowatts (kW); or

(c) any oil fuel unit;

"Main source of electrical power" means a designated source intended to supply electrical power to the main switchboard for distribution to all services necessary for maintaining the yacht in normal operational and habitable condition;

"Main steering gear" means the machinery and any related appurtenances used for the steerage of the yacht under normal service conditions;

"Main switchboard" means a switchboard that is directly supplied by the main source of electrical power and is intended to distribute electrical energy during normal operational and habitable condition;

"Main vertical zone" means those sections into which the hull, superstructure, and deckhouses are divided by "A" class divisions, the mean length of which on any deck does not exceed 40 m;

"Major conversion" means something that in the opinion of the Administrator:

(a) substantially alters the dimensions or carrying capacity of the yacht; or

(b) changes the original intent of the design of the yacht; or

(c) which otherwise so alters the yacht that it would become subject to the relevant provisions of the Code;

"Major refit" or "Major alteration" means either a change in the lightship displacement of 2% and above and/or lightship longitudinal center of gravity of 1% and above (measured from the aft perpendicular) and/or the calculated lightship vertical center of gravity rises by 0.25% and above (measured from the keel);

"Maritime Regulations" means the RMI Maritime Regulations (MI-108);

"MARPOL" means the International Convention for the Prevention of Pollution from Ships, 1973, and its 1978 Protocol, as amended;

"Master" means the Captain in command of the yacht;

"Maximum ahead service speed" means, for the purpose of steering gear and rudder stock and pintle design, the maximum contractual speed of the yacht, in knots;

"Motor yacht" means a yacht which is described on the COR as such, and which has as a sole means of propulsion from either one (1) or more power units;

"MLC, 2006" means the Maritime Labour Convention, 2006;

"Multihull yacht" means any yacht that in any normal operating trim or heel angle has a rigid hull structure that penetrates the surface of the water over more than one (1) separate or distinct area;

"**Nautical mile**" means 1,852 m or 6,076 feet;

"Not readily ignitable" means that the surface thus described will not continue to burn for more than 20 seconds after removal of a suitable impinging test flame;

"Officer" means a seafarer who is required to be qualified under the STCW;

"Passenger" means a person carried on a vessel except:

(a) a person employed or engaged in any capacity on the business of the vessel;

(b) a person on board the vessel either in pursuance of the obligation laid upon the Master to carry shipwrecked, distressed or other persons, or by reason of any circumstance that neither the Master nor the owner nor the charterer, if any, could have prevented or forestalled;

(c) a child under one (1) year of age; or

(d) a social guest;

"Passenger ship" means a ship carrying more than 12 passengers for consideration;

"Passenger Yacht (PAXY)" means any passenger ship registered as per Chapter 2 of the RMI Maritime Act (MI-107) that is described on the COR as a passenger yacht and therefore may be engaged in trade, commerce, or chartering carrying more than 12 but no more than 36 passengers under limited operational conditions;

"Position 1" means upon exposed freeboard and raised quarter decks and upon exposed superstructure decks situated forward of a point located a quarter of the yacht's length from the forward perpendicular;

"Position 2" means upon exposed superstructure decks situated abaft a quarter of the yacht's length from the forward perpendicular;

"Power actuating system" means the hydraulic equipment provided for supplying power to turn the rudder stock, comprised of a steering gear power unit or units, together with the associated pipes and fittings, and a rudder actuator. The power actuating systems may share common mechanical components, i.e., tiller, quadrant, and rudder stock, or components serving the same purpose. Related equipment used for alternative means of steering on yachts that, for example, use impellors for propulsion, are included;

"Private Use" means that the private yacht is used on a private voyage or excursion, and during such use is not engaged in trade by transporting merchandise or carrying passengers for reward or remuneration (other than as a contribution to the actual cost of the yacht or its operation for the period of the voyage or excursion, cumulatively for not more than 84 days per calendar year, where the private yacht has met the requirements of and is certified as a Private Yacht Limited Charter or a Yacht Engaged in Trade);

"Private yacht" means any yacht 12 m or more in length not carrying passengers for hire, not engaged in trade or commerce, and being used solely for pleasure or recreational purposes of its owner, which, at the time it is being used, is:

(a) in the case of a yacht owned by a corporate entity, one on which the persons on the yacht are employees, officers, directors, or beneficial owners of the corporate entity, or their immediate family or friends; or

(b) in the case of other ownership arrangements, one on which the persons on board the yacht are beneficiaries under the trust or the employees, officers, beneficial owners, or persons with similar designations of the ownership arrangement, or their immediate family or friends; or

(c) in private use;

"Private Yacht Limited Charter (PYLC)" means a private yacht 18 m or more in length overall and less than 500 GT registered as per Chapter 2, Part V, of the RMI Maritime Act (MI-107) that is described on the COR as a private yacht and holds a valid Private Yacht Limited Charter Compliance Certificate, allowing the yacht to be engaged in limited chartering for no more than 84 days per calendar year and which shall carry no more than 12 passengers;

"Rating" means a member of the crew (see definition of "Crew" above);

"Recess" means an indentation or depression in a deck and which is surrounded by the deck and has no boundary common with the shell of the yacht, e.g. a hot tub or spa;

"Recognized Organization (RO)" means an entity: 1) delegated authority to act on behalf of the Administrator with respect to statutory certification and services; and 2) if a Classification Society, has been assessed by the Administrator and found to comply with the RO Code or if an AR, has been assessed by the Administrator and found to substantially comply with the RO Code;

"Representative" means an individual or entity whereby, through written agreement, they may perform certain tasks as delegated to them through the agreement or may provide and agree to certain items as specifically mentioned in this Code;

"Rescue boat" means a boat complying with Chapter V of the LSA Code;

"RMI" means the Republic of the Marshall Islands;

"RO Code" means the Code for Recognized Organizations;

"Rules of Class" means the rules for the construction of yachts as established and used by a Classification Society for the purpose of classification;

"Safe haven" means a harbor or shelter of any kind that affords entry, subject to prudence in the weather conditions prevailing, and protection from the force of the weather;

"Sailing yacht" means a yacht designed to carry sail as a primary means of propulsion regardless of whether or not auxiliary means exist;

"Search and Rescue Transponder (SART)" means a device designed for use in survival craft to facilitate location of survival craft in search and rescue operations by radar and should comply with IMO Resolution A.802(19);

"Seafarers" means those persons who are employed, engaged, or work in any capacity on board any vessel unless specified otherwise;

"Side scuttle" means an ISO standardized type of round ship's window with or without a deadlight (ISO 6345:1990) that is of an opening (hinged) or non-opening type;

"Similar stage of construction" means at a stage which:

(a) construction identifiable with a specific vessel begins;

(b) assembly of that yacht, comprising at least 1% of the estimated mass of all structural material has commenced, excluding fiberglass reinforced plastic (FRP) or glass reinforced plastic (GRP); and

(c) in the case of yachts constructed of FRP or GRP, the date when more than 3% of the hull resin and reinforcement has been laid;

"Social guest" means a person who has been invited on board a private yacht by the owner for which no reward or remuneration is given;

"SOLAS" means the International Convention for the Safety of Life at Sea, 1974, and the 1988 Protocol, as amended;

"Statement of International Convention Voluntary Compliance" means a document attesting that the yacht is in substantial compliance to the satisfaction of the Administrator to an international code or convention that it is not required to abide by, but is doing so on a voluntary basis;

"STCW" means the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978, as amended;

"Steering gear power unit" means:

(a) in the case of electric steering gear, an electric motor and its associated electrical equipment;

(b) in the case of electrohydraulic steering gear, an electric motor and its associated electrical equipment and connected pump; and

(c) in the case of other hydraulic steering gear, a driving engine and connected pump;

"Storm cover" means a cover fitted to the outside of windows and side scuttles;

"Strum box" means a perforated metal box fitted around a bilge suction pipe opening to prevent debris from choking the pipe;

"Submersible" means a manned craft able to be submerged and capable of operating under water for short periods;

"**Supernumerary"** means a person engaged on board a vessel, employed by either the owner or charterer in connection with business interests of the vessel or in relation to social activities on board. Such persons include nannies, security guards, entertainers, butlers, and similar support personnel and are not considered passengers or crew members.

"Superstructure" means the definition as described in Annex I of ILLC;

"Survival craft" means a craft capable of sustaining the lives of persons in distress from the time of abandoning the yacht that meets the requirements of Chapter IV of the LSA Code;

"Tender" means a rigid or inflatable boat carried on or towed by a yacht for the purpose of transporting persons to and from the shore or between other vessels;

"Tender Statement of Compliance (TSC)" means a document issued by an AR to a tender to a commercial yacht, PAXY, PYLC, or YET stating that the tender meets a substantial safety standard as required by this Code;

"To sea" means beyond any partially smooth waters, or smooth waters limits that may have been designated by the authority in which the yacht is operating. In the event that no such areas have been designated, then it means that the yacht is considered to have proceeded beyond the immediate confined designated harbor;

"Training manual" means, with regard to life-saving appliances, a manual complying with the requirements of Chapter II, §27.3 and Chapter IV, §19.1 of this Code;

"Vessel" means any yacht;

"Very high frequency (VHF) radiotelephone" means a portable or a fixed VHF installation for survival craft complying with the performance adopted by the IMO in Resolution A.762(18), as amended;

"Void space" means any space not readily accessible and serving no practical function on board the yacht and incapable of readily collecting water under normal operating circumstances;

"Voyage" means any movement of the yacht, including an excursion;

"Watertight" means having the scantlings and arrangements capable of preventing the passage of water in any direction under the head of water likely to occur in intact and damaged conditions;

"Weather deck" means a deck which is completely exposed to the weather from above and from at least two (2) sides;

"Weather-tight" means, as defined in Annex I of ILLC 1966/1988, that in any sea conditions water will not penetrate into the yacht;

"Window" means any window, regardless of shape, suitable for installation aboard yachts; and

"Yacht Engaged in Trade (YET)" means a private yacht registered as per Chapter 2, Part V, of the RMI Maritime Act (MI-107) that is eligible to obtain a valid Temporary Certificate of Registry for

Yacht Engaged in Trade and which maintains a valid Yacht Engaged in Trade Compliance Certificate, and therefore may be engaged in temporary chartering for no more than 84 days in a calendar year, which shall carry no more than 12 passengers and is 24 m or more in Load Line Length.

CHAPTER II:

COMMERCIAL YACHTS

1.0 STATUTORY AND NATIONAL REQUIREMENTS

All commercial yachts shall comply with the requirements outlined in this Chapter II as well as the applicable requirements of Chapter I of this Code and all other applicable RMI laws and regulations.

Please refer to *RMI Yacht Compliance Requirements* (MI-103A) for a comprehensive matrix of statutory and national requirements for all commercial yachts.

1.1 Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS '72)

All commercial yachts shall comply with the requirements of COLREGS '72.

1.2 International Convention on Tonnage Measurement of Ships, 1969 (ITC)

All commercial yachts of 24 m or more in length are required to be surveyed and admeasured to the ITC and issued with an International Tonnage Certificate.

1.3 International Convention for the Prevention of Pollution from Ships (MARPOL)

All commercial yachts are required to comply with the provisions of MARPOL, subject to the applicability of each MARPOL Annex.

Please refer to *Requirements for MARPOL Surveys for All Yachts* (MN 2-013-11).

1.3.1 MARPOL Annex I

All commercial yachts shall comply with the requirements of MARPOL Annex 1. Commercial yachts of 400 GT and above shall be surveyed to verify compliance and issued with the following:

(a) International Oil Pollution Prevention Certificate (IOPPC); and

(b) Supplement to the IOPPC; and shall maintain

(c) an Oil Record Book.

**All commercial yachts less than 400 GT shall maintain a similar oil record book.*

1.3.2 MARPOL Annex IV

.1 Commercial yachts of 400 GT and above or certified to carry more than 15 persons, regardless of tonnage, shall comply with the requirements of MARPOL Annex IV. Commercial yachts to which Annex IV applies shall be surveyed to verify compliance and issued with the International Sewage Pollution Prevention Certificate.

.2 In certain cases, MARPOL references stipulated criteria for "ships…which are certified to carry more than 15 persons." The Administrator recognizes that this is not always applicable to all commercial yachts due to non-mandatory requirements of certain certificates.

Therefore, for the purposes of MARPOL Annex IV, where the number of persons carried on board is a stipulated criterion, the figure to be used shall be that number shown on the Cargo Ship Safety Equipment Certificate (supplement). If the commercial yacht is not required to hold a Cargo Ship Safety Equipment Certificate, the figure to be used shall be the number of all persons for whom permanent overnight accommodations can be provided.

1.3.3 MARPOL Annex V

.1 All commercial yachts shall comply with the requirements of MARPOL Annex V. Commercial yachts of 400 GT and above and those certified to carry 15 persons or more, regardless of tonnage, shall be surveyed to verify compliance and must maintain a Garbage Record Book.

.2 Commercial yachts of 100 GT and above or certified to carry 15 persons or more, regardless of tonnage, are required to have a Garbage Management Plan.

.3 In certain cases, MARPOL Annex V references stipulated criteria for "every ship…which is certified to carry 15 or more persons." The Administrator recognizes that this is not always applicable to all commercial yachts due to non-mandatory requirements of certain certificates.

Therefore, for the purposes of MARPOL Annex V, where the number of persons carried on board is a stipulated criterion, the figure to be used shall be that number shown on the Cargo Ship Safety Equipment Certificate (supplement). If the commercial yacht is not required to hold a Cargo Ship Safety Equipment Certificate, the figure to be used shall be the number of all persons for whom permanent overnight accommodations can be provided.

1.3.4 MARPOL Annex VI

.1 All commercial yachts shall comply with the requirements of MARPOL Annex VI. Commercial yachts of 400 GT and above are required to be surveyed to verify compliance and be issued with the following:

(a) International Air Pollution Prevention Certificate (IAPPC); and

(b) Supplement to the IAPPC; and maintain an

(c) Ozone-Depleting Substances Record Book; and

(d) International Energy Efficiency Certificate (IEEC); and

(e) Ship Energy Efficiency Management Plan (SEEMP).

.2 In addition, commercial yachts that are required to comply with Regulation 13 of Annex VI shall have a Technical File and an Engine IAPPC (EIAPPC) for each marine diesel engine over 130 kW.

1.4 Anti-Fouling

.1 All commercial yachts shall comply with the requirements of the International Convention on the Control of Harmful Anti-Fouling Systems on Ships. All commercial yachts of 400 GT and over and engaged in international voyages shall be issued with the following:

(a) International Anti-Fouling System Certificate; and

(b) Record of Anti-Fouling Systems.

.2 Commercial yachts of 24 m or more in length but less than 400 GT engaged in international voyages shall carry a Declaration on Anti-Fouling Systems signed by the owner or his/her representative. The Declaration will be accompanied by appropriate documentation such as a paint receipt or contractor invoice.

1.5 International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM Convention)

Upon its entry into force, all commercial yachts constructed to carry ballast water shall comply with the requirements of the BWM Convention.

1.6 Nairobi International Convention on the Removal of Wrecks, 2007 (WRLC)

Commercial yachts of 300 GT and above are required to be insured and certificated under the WRLC. Please refer to *Nairobi International Convention on the Removal of Wrecks, 2007 Certification Requirements* (MN 2-011-45).

1.7 International Convention on Civil Liability for Bunker Oil Pollution Damage (CLBC)

Commercial yachts of 1,000 GT and above are required to be insured and certificated under the CLBC. Please refer to *Civil Liability for Bunker Oil Pollution Damage, 2001, Certification Requirements* (MN 2-011-27).

1.8 Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW)

All commercial yachts shall have an MSMC and the crew must be appropriately certified in accordance with §29.0 of this Chapter.

1.9 International Convention on Load Lines, 1966 (ILLC)

All commercial yachts shall be surveyed in accordance with the applicable provisions of the ILLC as modified by this Code and be issued with the following:

(a) International Load Line Certificate; and

(b) Record of Conditions of Assignment.

1.10 International Convention for the Safety of Life at Sea (SOLAS)

All commercial yachts shall comply with the SOLAS requirements, as outlined below.

1.10.1 SOLAS Chapter II-1 and II-2: Safety Construction

Commercial yachts of 500 GT and above are required to be surveyed under the requirements of SOLAS: Chapter II-1 and Chapter II-2, as modified by this Code and issued with a Cargo Ship Safety Construction Certificate.

1.10.2 Classification and Certification

.1 All commercial yachts shall be able to demonstrate that their hull and machinery was built to a known high standard. This is typically accomplished by having the commercial yacht built to the Rules of Class and issued a class certificate.

.2 Commercial yachts of 500 GT or more must maintain classification and statutory certification with a Classification Society. Refer to MG 2-11-15 for a list of the Administrator recognized Classification Societies.

1.10.3 SOLAS Chapter III: Safety Equipment

Commercial yachts of 500 GT and above are required to be surveyed under the requirements of SOLAS: Chapter III, as modified by this Code and issued with the following:

(a) Cargo Ship Safety Equipment Certificates; and

(b) Record of Equipment for the Cargo Ship Safety Equipment Certificate (Form E).

1.10.4 SOLAS Chapter IV: Radio Communications

Commercial yachts of 300 GT and above are required to be surveyed under the requirements of SOLAS Chapter IV, as modified by this Code and issued with the following:

(a) Cargo Ship Safety Radio Certificate;

(b) Record of Equipment for the Cargo Ship Safety Radio Certificate (Form R); and

(c) Ship Radio Station License.

1.10.5 SOLAS XI-1/3 IMO Number

.1 Commercial yachts of 300 GT and above shall be marked with their IMO number.

.2 The permanent marking shall be plainly visible and shall be painted in a contrasting color on a horizontal surface visible from the air.

.3 The permanent marking referred to in §1.10.5.2 above shall be not less than 200 mm in height. The width of the marks shall be proportionate to the height.

.4 In addition, the permanent marking shall be located in an unobstructed location on an end transverse bulkhead of the machinery space.

.5 The permanent marking referred to in §1.10.5.4 above shall not be less than 100 mm in height. The width of the marks shall be proportionate to the height. This marking may be made by raised lettering, by cutting it in, by center punching it, or by any other equivalent

method of marking the identification number which ensures that the marking is not easily expunged.

.6 For commercial yachts constructed of a material other than steel or metal where the requirements of marking as referred to in §1.10.5.5 above are not feasible, alternative methods of permanent marking may be approved by the Administrator.

1.11 International Safety Management (ISM) Code

.1 Commercial yachts of 500 GT and above are required to comply with the requirements of SOLAS Chapter IX and the ISM Code and be issued with the following:

(a) A copy of the controlling Document of Compliance (DoC); and

(b) Safety Management Certificate (SMC).

.2 Please see *International Safety Management (ISM) Code* (MN 2-011-13) for further details.

.3 Commercial yachts less than 500 GT are required to implement and maintain a mini-ISM system as part of their certification. Please refer to Annex 1 of this Code.

1.12 International Ship and Port Facility Security (ISPS) Code

Commercial yachts of 500 GT and over are required to comply with the requirements of SOLAS Chapter XI-2 and the ISPS Code, and be issued an International Ship Security Certificate (ISSC).

Please see *International Ship and Port Facility Security (ISPS) Code* (MN 2-011-16) for further details.

1.13 Maritime Labour Convention, 2006 (MLC, 2006)

.1 All commercial yachts are required to comply with the requirements of MLC, 2006 and shall be subject to inspections to verify compliance.

.2 All commercial yachts of 500 GT or more shall carry on board a Maritime Labour (ML) Certificate evidencing compliance.

.3 For commercial yachts less than 500 GT, certification is not required, but voluntary certification is recommended.

2.0 CONVENTION SURVEYS

2.1 Survey Standards

.1 Statutory and other certification work may be undertaken by those organizations specified in MG 2-11-15.

.2 Further, entities authorized by Class and ARs to conduct in water surveys, radio surveys, etc., are also duly recognized by the Administrator.

2.2 Survey Requests

All requests for survey and certification must be made to an appropriate Classification Society or AR.

2.3 Exemptions and Equivalencies

In accordance with Chapter I, §2.4, all requests for exemptions and/or equivalencies from the application of specific requirements as specified in any international convention or code must be formally made in writing, with supporting documentation, to the Administrator and must be submitted via a Classification Society or AR conducting the survey. The Administrator will authorize an exemption if and when it is deemed appropriate.

2.4 Statements of International Convention Voluntary Compliance

Commercial yachts that voluntarily comply with the provisions of an international convention or code, which would not otherwise apply to the particular commercial yacht, shall have Statements of International Convention Voluntary Compliance issued instead of convention Certificates of Compliance.

3.0 MAINTAINING COMPLIANCE WITH THIS CODE

3.1 General

In accordance with RMI law and regulations, all commercially registered commercial yachts regardless of size and registration date, must be annually inspected by an AR, as applicable, to verify compliance with this Code. This Compliance Verification is in addition to, and separate from, any other inspections or surveys that may be required to meet Class or international statutory requirements.

See *Surveys and Issuance of International Convention and National Certificates for Yachts* (MN 2-011-42) for further guidance on compliance verification requirements.

3.2 Statutory Compliance and RMI Certification

Every commercial yacht shall maintain valid statutory international convention certification issued by a Classification Society or AR. Commercial yachts must also maintain a valid RMI Commercial Yacht Compliance Certificate (CYCC).

.1 Classed commercial yachts regardless of size shall be certified for compliance to the international statutory conventions by a Classification Society.

.2 Unclassed commercial yachts of less than 500 GT may be certified for compliance to the international statutory conventions by an AR.

.3 Unclassed commercial yachts shall have the outside of the commercial yacht's bottom and related items examined in accordance with *Examination of a Yacht's Hull and Related Items* (YTC 4).

.4 It shall be the responsibility of owners/managers and Masters to ensure that their commercial yachts are in compliance with the requirements of all applicable international

treaties, conventions, protocols, codes, and agreements, which have come into force and to which the RMI is a party.

.5 It is the responsibility of the owner/manager and Master to maintain the validity and endorsement of all applicable certificates at all times. Invalidation of any certificate issued to the commercial yacht may result in the withdrawal of the COR.

.6 The Classification Society or AR shall advise the Administrator promptly, in writing, when it suspends, withdraws, cancels, or alters the operational limitations of its certificates, together with the reason(s) why such action was taken.

.7 The Classification Society or AR shall promptly inform the Administrator when a commercial yacht is found to be in operation with deficiencies or discrepancies, such that the condition of the commercial yacht or its equipment does not meet the requirements or comply with the particulars of its certificates, the applicable international conventions, and/or RMI requirements, including this Code.

3.3 Commercial Yachts Constructed in Accordance with the Code

Commercial yachts constructed or which underwent a major conversion in accordance with the Code shall, upon verification of compliance by a Classification Society or AR, be issued a Statement of Compliance. Classed commercial yachts shall have the Statement of Compliance issued by a Classification Society and unclassed commercial yachts shall have the Statement of Compliance issued by an AR. Please refer to *Delegation of Yacht Code Compliance Reviews and Surveys of New Construction and Conversion of Yachts* (YTC 2) for full details.

4.0 CONSTRUCTION

4.1 General Requirements

.1 All commercial yachts shall have a freeboard deck.

.2 All commercial yachts shall be fitted with a weather-tight deck for the length of the commercial yacht and be of adequate strength to withstand the sea and weather conditions likely to be encountered in the declared area(s) of operation.

.3 Hull construction material, as it relates to structural fire protection, shall comply with §11.0 and §12.0 of this Chapter.

4.2 Structural Strength

All commercial yachts of any size shall be/have been approved to, and built in accordance with, the Rules of Class, and as such will be accepted as being of adequate strength for the service conditions covered by the classification notation.

4.3 Watertight Bulkheads

.1 The strength of watertight bulkheads shall be designed and constructed in accordance with the Rules of Class.

.2 Openings in required watertight bulkheads should have an efficient means of closure that will maintain the watertight integrity of the bulkhead, similar to the standards required of passenger ships as defined in SOLAS regulation II-1/13.

.3 Watertight doors should normally be closed, unless frequent access to living and working spaces through sliding watertight doors is necessary. When access to a compartment is unlikely for lengthy periods, the sliding doors or approved hinged doors should be closed.

.4 For commercial yachts of less than 500 GT, where it is not reasonable and practicable to meet the requirements of §4.3.1 to §4.3.3 above, hinged watertight doors in lieu of those required by SOLAS regulation II-1/13, may be considered by the Administrator. Such doors shall be fitted with indicators in the wheelhouse and remain shut at sea, except at the Master's discretion or in accordance with operational procedures.

.5 Procedures for the operation of watertight doors shall be established and posted in suitable locations.

4.4 Enclosed Compartments Within the Hull and Below the Freeboard Deck Provided with Access through Openings in the Hull

.1 Compartment(s) below the freeboard deck and having access openings in the hull, shall be enclosed by watertight divisions without any opening between compartments (i.e,. doors, manholes, ventilation ducts, or any other opening) unless they are provided with sliding watertight doors that are in compliance with SOLAS regulation II-1/13.

.2 For commercial yachts of less than 500 GT, approved hinged watertight doors may be accepted, provided the following conditions are met:

(a) the lower edge of the shell opening shall not be below a line drawn parallel to the freeboard deck at side, which is at its lowest point at least 230 mm above the upper edge of the uppermost load line;

(b) a leakage detection device shall be provided in the compartment between the two (2) doors, with visual and audible warnings on the bridge;

(c) the sill of the inner door is above the sill of the shell opening;

(d) after flooding of the space containing the shell opening, the resultant waterline is below the sill of the internal openings in that space; and

(e) hinged doors are to open into the shell door compartment.

.3 Openings in the hull shall comply with SOLAS regulation II-1/15-1. Provisions shall be made to ensure that doors may be manually closed and locked in the event of power or hydraulic failure.

5.0 CONDITIONS OF ASSIGNMENT

5.1 General

.1 All commercial yachts shall comply with the conditions of assignment of the ILLC, as amended by this Code.

.2 In individual cases, when the requirements of ILLC or the Code cannot be met, the Administrator may consider alternative arrangements to achieve adequate safety standards, such as imposing operational limitations.

.3 Limitations or restrictions on the use of the commercial yacht at sea shall be recorded on the CYCC and MSMC issued to the commercial yacht.

5.2 Hatchways and Skylight Hatches

5.2.1 General Requirements

.1 All openings leading to spaces below the weather deck not capable of being closed weather-tight must be enclosed within either an enclosed superstructure or a weather-tight deckhouse of adequate strength.

.2 All exposed hatchways which give access to spaces below the weather-tight weather deck are to be of substantial weather-tight construction and provided with efficient means of closure. Weather-tight hatch covers shall be permanently attached to the commercial yacht and provided with adequate arrangements for securing the hatch closed.

.3 Hatches that are to be used for escape purposes shall be provided with covers that are capable of being opened from both sides. An escape hatch shall be readily identifiable and easy and safe to use, having due regard to its position and access to and from the hatch.

.4 Flush deck hatches are acceptable for escape hatches and lockers on deck, if constructed to the Rules of Class. Wells for rescue boats with flush hatches are acceptable provided they meet the Rules of Class for wells.

5.2.2 Hatchways Open at Sea

Hatches should be kept closed at sea. However, hatchways that may be kept open for access at sea for lengthy periods are to be kept as small as is practical (a maximum of 1 m^2 in a clear area), located on the centerline of the commercial yacht, and fitted with coamings in accordance with the tables in §5.3 below. Covers of hatchways are to be permanently attached to the hatch coamings and, where hinged, the hinges are to be located on the forward side. Alarm switches should be installed that indicate the open/close position of the hatches in the wheelhouse.

5.3 Doorways and Companionways Located Above the Weather Deck

.1 Exposed doors in deckhouses and superstructures that give access to spaces below the weather deck are to be weather-tight, and door openings shall have coaming heights in accordance with Table 1 below:

Table 1		
Location	**Category 0**	**Category 1 or 2**
a	600 mm	300 mm
b	300 mm	150 mm
c	150 mm	75 mm

Location:

a if the door is in the forward quarter length of the commercial yacht and used when the commercial yacht is at sea;

b if the door is in an exposed forward facing location aft of the forward quarter length; or

c if above the surface of the deck when the door is in a protected location aft of the forward quarter length or an unprotected door on the first tier deck above the weather deck.

.2 Weather-tight doors shall be so arranged to open outwards and when located in the side of the house, shall be hinged at the forward edge. Alternative closing arrangements may be considered if it can be demonstrated that the efficiency of the closing arrangements and their ability to prevent the ingress of water will not impair the safety of the commercial yacht.

.3 An access door leading directly to the engine room from the weather deck shall be fitted with a coaming height in accordance with Table 2 below:

Table 2		
Location	**Category 0**	**Category 1 or 2**
Position 1	600 mm	450 mm
Position 2	380 mm	200 mm

.4 Coaming heights, construction, and securing standards for weather-tight doors that are provided for use only when the commercial yacht is in port or at anchor in calm sheltered waters and are locked closed when the commercial yacht is at sea may be considered individually.

.5 Companion hatch openings:

(a) Companionway hatch openings that give access to spaces below the weather deck shall be fitted with a coaming, the top of which is at least 300 mm above the deck.

(b) Washboards may be used to close the vertical opening. When washboards are used, they shall be so arranged and fitted that they will not be dislodged readily. Provisions are to be made to ensure that they are stowed in a secure location when not in use.

(c) The maximum breadth of an opening in a companion hatch shall not exceed 1 m.

5.4 Skylights

.1 All skylights shall be of efficient weather-tight construction approved by Class. The location of the skylights shall be on or as near to the centerline of the commercial yacht as practicable.

.2 Skylights of the opening type shall be provided with efficient means whereby they can be secured in the closed position.

.3 A minimum of one (1) portable cover for each size of glazed opening shall be provided which can be accessed rapidly and efficiently secured in the event of a breakage of the skylight.

.4 Skylights that are provided as a means of escape shall be operable by hand from both sides. An escape skylight shall be readily identified and easy and safe to use, having due regard to its position and to the access to and from the skylight. Portable covers for these skylights shall be able to be opened from the inside to enable escape to the outside in case of emergency.

.5 The skylight glazing material and its method of securing within the frame shall meet the appropriate marine standards as defined in BS, EN, or other recognized national or international standards.

5.5 Side Scuttles/Portlights

.1 Side scuttles/portlights shall be of an Approved Type. Oval portholes can be accepted on the basis of equivalent area (0.16 m^2) and similar scantlings to round portholes. They shall be of strength appropriate to the location in the commercial yacht and meet recognized international marine standards.

.2 Where large portlights with an area greater than 0.16 m^2 are to be fitted in the hull below the freeboard deck, these shall be subject to special consideration and approval. Protective covers, supporting structure, and glazing strength shall be to the satisfaction of Class.

.3 With regard to structural fire protection, the requirements for the construction of certain side scuttles/portlights shall meet the requirements of §12.6 below.

.4 All side scuttles/portlights fitted in locations protecting openings to spaces below the weather deck or fitted in the hull of the commercial yacht, shall be provided with a deadlight which is to be permanently attached and is capable of securing the opening watertight in the event of a breakage of the scuttle glazing. Proposals to fit side scuttles/portlights with portable deadlights will be subject to special consideration and approval by the Administrator, having regard for the location of the side scuttles and ready availability of deadlights to be fitted.

.5 Side scuttles/portlights fitted in the hull of the commercial yacht below the level of the freeboard deck shall be either non-opening or of a non-readily opening type, have a glazed diameter of not more than 450 mm, and be in accordance with a standard recognized by the Administrator. The sill height of the side scuttles/portlights shall be at least 500 mm or 2.5% of the breadth of the commercial yacht, whichever is the greater, above the smallest freeboard assigned to the commercial yacht. Scuttles/portlights of the non-readily opening type must be secured closed when the commercial yacht is in navigation.

.6 Side scuttles/portlights shall not be fitted in the hull in way of the machinery space.

5.6 Windows

.1 Windows shall be of an Approved Type. They shall be of strength appropriate to their location in the commercial yacht and meet appropriate marine standards defined in BS, EN, or another recognized national or international standard such as ISO 11336-1:2012(E). Where windows are not to the requirements of this Code, they may be accepted subject to review and approval by the Administrator. Compliance with the Rules of Class is acceptable. With regard to structural fire protection, the requirements for the construction of certain windows shall meet the requirements of §12.6 below.

.2 Windows fitted in superstructures or weather-tight deckhouses are to be substantially framed and efficiently secured to the structure. The glass is to be of the toughened safety glass type that breaks into small sized particles. The glass may be laminated or monolithic, but lamination alone is not acceptable if the glass breaks into dangerous fragments that are assumed to detach from the plastic layers. Polycarbonate windows are

accepted provided they meet the standards for unrestricted seagoing commercial service. Bonded windows may be accepted by the Administrator on a case-by-case basis.

Safety standards relating to the provision of large glass doors or windows fitted in the aft end of a superstructure or weather-tight deckhouse will be considered on an individual basis by the Administrator.

.3 Windows should not be fitted in the following locations:

(a) below the freeboard deck;

(b) in the first tier end bulkheads or sides of enclosed superstructures; or

(c) in first tier deckhouses that are considered buoyant in the stability calculations.

Proposals to fit windows in these locations will be subject to special consideration and approval by the Administrator, with regard to the location and strength of the windows and their supporting structure and the availability of strong protective covers for the windows. Such special consideration may also take into account the existence of operational instructions to the Master as to when the strong protective covers must be applied to windows.

.4 For Category 0 commercial yachts, storm covers are required for all windows in the front and on the sides of first tier and front windows of the second tier of superstructures or weather-tight deckhouses above the freeboard deck. Where windows are of sandwich construction and their increased toughened safety glass thickness is considered an equivalent to windows fitted with storm covers, the Administrator may consider the arrangement provided that this is recommended by Class, but a blanking plate is to be provided for each size window.

.5 Windows to the conning position shall not be of either polarized or tinted glass. (See §19.4 below.)

5.7 Ventilators and Exhausts

.1 Adequate natural and/or mechanical ventilation is to be provided throughout the commercial yacht. The accommodation spaces are to be protected from the entry of gas and/or vapor fumes from galley, machinery, exhaust, and fuel systems.

.2 Ventilators in exposed locations are to be of efficient construction and provided with permanently attached means of weather-tight closure. Ventilators serving any space below the freeboard deck or an enclosed superstructure shall have coamings of minimum heights as specified in Table 3 below:

Table 3

Location	Category 0	Category 1 or 2
Forward Quarter Length	900 mm	450 mm
Elsewhere	760 mm	380 mm

.3 Ventilators shall be kept as far inboard as practicable and the height above the deck of the ventilator opening shall be sufficient to prevent the ingress of water when the commercial yacht heels.

.4 The ventilation of spaces, such as the machinery space, that must remain open require special attention with regard to the location and height of the ventilation openings above the deck taking into account the effect of down-flooding angle on stability standard.

.5 The means of closure of ventilators serving the machinery space shall be selected with regard to the fire protection and extinguishing arrangements provided in the machinery space.

.6 Engine exhaust outlets that penetrate the hull below the freeboard deck shall be provided with means to prevent back-flooding into the hull through a damaged exhaust system. At a minimum, commercial yachts shall have well-constructed anti-siphon loops on all exhaust lines at a minimum height of 1 m above the waterline or a satisfactory waterbreak system.

5.8 Air Pipes

.1 Air pipes serving fuel and other tanks shall be of efficient construction and provided with permanently attached means of weather-tight closure. Means of closure may be omitted if it can be shown that the open end of an air pipe is protected by other structures that will prevent the ingress of water.

.2 Where located on the weather deck, air pipes shall be kept as far inboard as practicable and be fitted with a coaming of sufficient height to prevent inadvertent flooding. Where this is impractical to do so, air pipes may be fitted in a suitable protected area elsewhere, provided that this location is in accordance with Class. Air pipes to tanks should have coamings of minimum heights as specified in Table 4 below:

Table 4

Location	Category 0	Category 1 or 2
On Weather Deck	760 mm	380 mm
Elsewhere	450 mm	225 mm

.3 Air pipes to fuel tanks shall terminate at a height of not less than 760 mm above either the top of the filler pipe for a gravity filling tank or the top of the overflow tank for a pressure filling tank.

5.9 Scuppers, Sea Inlets, and Discharges

The standards of the ILLC shall be applied to every discharge led through the shell of the commercial yacht. All sea inlet and overboard discharges shall be provided with efficient shut-off valves arranged in positions where they are readily accessible at all times.

5.10 Materials for Valves and Associated Piping

.1 Valves that are fitted below the waterline shall be of steel, bronze, or other material having a similar resistance to impact and fire.

.2 The associated piping shall, in areas as indicated above, be of steel, bronze, copper, or other equivalent material that is considered of equal or greater strength than the hull.

.3 Where the use of plastic piping is proposed, it will be considered on an individual basis and full details of the type of piping and its intended location and use shall be submitted

to the Administrator for consideration. The Administrator may require tests to be carried out on the plastic piping, as necessary, before approving its use.

.4 The use of flexible piping in any situation should be kept to a minimum compatible with the essential reason for its use. The Administrator or its representative shall approve flexible piping and the means of joining it to its associated hard piping system as fit for the purpose.

5.11 Underwater Lights

Underwater lights shall be of an Approved Type.

5.12 Water Freeing Arrangements

.1 For all commercial yachts, the standards for water freeing arrangements shall comply with the ILLC. In individual cases where the requirements of the ILLC cannot be met, the Administrator may consider alternative arrangements to achieve adequate safety standards, such as, operational limitations. In any case, the intention should be to achieve a standard of safety that is at least equivalent to the standard of the ILLC.

.2 When a commercial yacht is unable to fully comply with the ILLC, the Administrator may take into account the commercial yacht's past performance in service and the declared area(s) of operation and assign a limited range Category 1 or 2. This notation will be recorded on the CYCC, as applicable.

.3 Recesses on a commercial yacht:

(a) any recess in the weather deck shall be of weather-tight construction and shall be self-draining under all normal conditions of heel and trim of the commercial yacht;

(b) an open swimming pool or spa shall be treated as a recess;

(c) the recess drainage arrangement shall be capable of efficient operation when the yacht is heeled at an angle of 10° for a motor commercial yacht and 30° for a sailing commercial yacht;

(d) the drainage arrangement shall be such as to be able to empty the full recess within three (3) minutes when a commercial yacht is in a normal seagoing condition and to prevent the backflow of water into the recess; and

(e) any alternative arrangements proposed for consideration by the Administrator should take into account the mass of water and its free surface effect on the intact and damage stability.

5.13 Bulwarks and Guard Rails

Commercial yachts shall comply with the ILLC requirements, unless compliance is unreasonable or not practicable.

.1 Where there will be people on the deck frequently, bulwarks or three (3) courses of rail or taut wires shall be fitted around the deck at a height of not less than 1,000 mm above the deck. Guard rails or taut wires when used shall be supported by stanchions at intervals not exceeding 2.2 m. Intermediate courses of rails or wires shall be evenly spaced.

.2 Where the function of the commercial yacht would be impeded by the provision of bulwarks and/or guard rails complying with §5.13.1 above, alternative proposals detailed to provide an equivalent level of safety for persons on deck may be submitted to the Administrator for review and approval.

5.14 General Equivalence

Where commercial yachts cannot comply with the requirements of §5.1 to §5.13 above, equivalent arrangements may be considered by the Administrator. Such proposals shall take into account the following non-exhaustive list:

(a) closure at sea;

(b) enhanced bilge pumping capacity and bilge alarms;

(c) full compliance with damage stability;

(d) provision of dorade boxes or baffle systems to prevent direct water ingress;

(e) alternative ventilation for use in bad weather;

(f) excess freeboard – greater than one (1) standard superstructure height;

(g) consideration of risk of down-flooding angle and height due to position;

(h) consideration of risk of green sea loads;

(i) enhanced survey inspection regime; and

(j) operational limitations.

6.0 FREEBOARD

6.1 General

.1 Compliance with the ILLC is mandatory for all commercial yachts of 24 m or more in length.

.2 For existing commercial yachts where full compliance with the ILLC cannot be attained, the Administrator may consider exemptions in accordance with Article 4 of the ILLC.

.3 The freeboard for the commercial yacht and its marking shall be approved by the Administrator or its representative for the assignment of freeboard and the issuance of the International Load Line Certificate.

.4 Commercial yachts shall comply with the ILLC for the assignment of a greater than minimum freeboard mark which corresponds to the deepest loading condition included in the stability information booklet for the commercial yacht.

.5 The assigned freeboard shall reflect damage as well as intact stability, geometry, hull structure, and fittings. Any duplicating load line mark shall be painted out. The assigned freeboard shall ensure compliance with minimum bow height and reserve buoyancy.

.6 Commercial yachts of novel design and commercial yachts which, to suit exceptional operational requirements, cannot meet the bow height requirements may be given special consideration by the Administrator or its representative.

.7 The Class or AR issuing the ILLC Certificate shall provide the commercial yacht with a copy of the particulars of the freeboard assigned and a copy of the record of conditions of assignment, which is required to be kept on board at all times.

6.2 Freeboard Mark and Loading

.1 The freeboard mark applied may be an all seasons mark positioned port and starboard at amidships in the Load Line Length. The mark shall be permanent and easily seen by raising the mark or using a contrasting color to the hull of the commercial yacht in way of the mark.

.2 The fresh water freeboard allowance shall be obtained by deducting from the all seasons freeboard assigned:

$$\Delta/4T \text{ mm}$$

Where:

Δ = displacement in salt water in tons at the all seasons load waterline; and

T = tons per centimeter (cm) immersion in salt water at the all seasons load waterline.

Alternatively, the deduction may be taken as $1/48^{th}$ of the all seasons draft of the commercial yacht at amidships.

.3 Marking of the fresh water allowance is optional.

.4 A commercial yacht shall not operate in any condition that will result in its appropriate freeboard marks being submerged when it is at rest and upright in calm water.

6.3 Draft and Load Line Marks

6.3.1 Draft Marks

.1 Draft marks shall be provided at the bow and stem, port and starboard, and be adequate in number for assessing the condition and trim of the commercial yacht. A draft mark may be a single datum line.

.2 Draft marks shall be permanent and easily read but need not be of contrasting color to the hull. The marks need not be at more than one (1) draft at each position but shall be above and within 1,000 mm of the deepest load waterline. The paint line of the boot topping may be used if this has permanent marks indented in the hull.

.3 The draft to which marks relate shall be indicated either above the mark on the hull and/or in a record on the docking plan for the commercial yacht.

6.3.2 Load Line Marks

.1 The load line or Plimsoll 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 summer load line is indicated by the upper edge of the line which passes through the center of the ring.

.3 For classed commercial yachts, the mark of the authority 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 (4) initials to identify the authority's name, each measuring approximately 115 mm in height and 75 mm in width.

.4 For unclassed commercial yachts carrying a Plimsoll mark, the marking used shall be "MI."

.5 The ring, lines, and letters shall be of a permanent form and be of contrasting color to the hull in way of the marks.

6.4 Docking Plan

The commercial yacht shall be provided with a docking plan, a copy of which shall be maintained on board.

7.0 STABILITY – INTACT AND DAMAGED

7.1 General

.1 The standards set forth in this section shall be met for both intact and damaged stability.

.2 An intact stability standard proposed for assessment of a commercial yacht configuration, which is not covered by this Code, shall be submitted to Class for review at the earliest opportunity.

7.2 Intact Stability

7.2.1 All Commercial Motor Yachts

The statical stability curves for seagoing conditions shall meet the following criteria:

(a) the area under the righting lever (GZ) curve shall not be less than 0.055 meter-radians up to φ=30º angle of heel and not less than 0.09 meter-radians up to φ=40º angle of heel, or the angle of down-flooding φ_f[1], if this angle is less than 40º; additionally, the area under the GZ curve between the angles of heel of 30º and 40º or between 30º and the angle of down-flooding φ_f, if this angle is less than 40º, shall not be less than 0.03 meter-radians;

(b) the GZ shall be at least 0.20 m at an angle of heel equal to or greater than 30º;

(c) the maximum GZ shall occur at an angle of heel not less than 25º;

[1] φ_f is an angle of heel which openings in the hull, superstructures, or deck-houses which cannot be closed weather-tight immerse. In applying this criterion, small openings through which progressive flooding cannot take place need not be considered as open.

(d) after correction for free surface effects, the initial metacentric height (GM) shall not be less than 0.15 m; and

(e) in the event that the commercial yacht's intact stability standard fails to comply with the criteria defined in §7.2.1a to §7.2.1d above, the equivalent stability standards of §7.2.2 below may be considered by the Administrator as recommended by Class or the AR.

7.2.2 Equivalent Stability Standards

Where commercial motor yachts are unable to meet the criteria in §7.2.1 above, the following criteria may be used:

(a) the area under the GZ curve shall not be less than 0.07 meter-radians up to 15º angle of heel, when maximum GZ occurs at 15°, and 0.055 meter-radians up to 30º angle of heel, when maximum GZ occurs at 30º or above. Where the maximum GZ occurs at angles of between 15º and 30º, the corresponding area under the GZ curve shall be:

$$0.055 + 0.001(30^{o} - \varphi_{max}) \text{ meter-radians};^{2}$$

(b) the area under the GZ curve between the angles of heel of 30º and 40º, or between 30º and the angle of down-flooding (φ_f) if this is less than 40º, shall not be less than 0.03 meter-radians;

(c) the GZ shall be at least 0.20 m at an angle of heel equal to or greater than 30º;

(d) the maximum GZ shall occur at an angle of heel not less than 15º; and

(e) after correction for free surface effects, the GM shall not be less than 0.15 m.

7.2.3 Commercial Sailing Yachts

Commercial sailing yacht stability will be considered on a case-by-case basis by the Administrator or its representative.

7.3 Damaged Stability

.1 It should be noted that damaged stability is applied as part of this Code as an equivalency for non-compliance with full ILLC Conditions of Assignment for commercial yachts less than 80 m in length.

.2 Therefore, it should be noted that compliance with damaged stability criteria is not required for commercial yachts less than 80 m in length that obtain full compliance with the ILLC Conditions of Assignment.

.3 Damaged stability need not be assessed by calculation for commercial yachts of less than 500 GT which are limited to Category 2, on the basis that the freeboard is greater than the required minimum and the commercial yacht's restricted service. However, ultimate survivability after minor damage or flooding is recommended.

.4 The watertight bulkheads of the commercial yacht shall be so arranged that minor hull damage that results in the free flooding of any one (1) compartment will cause the

[2] φ_{max} is the angle of heel in degrees at which the GZ curve reaches its maximum.

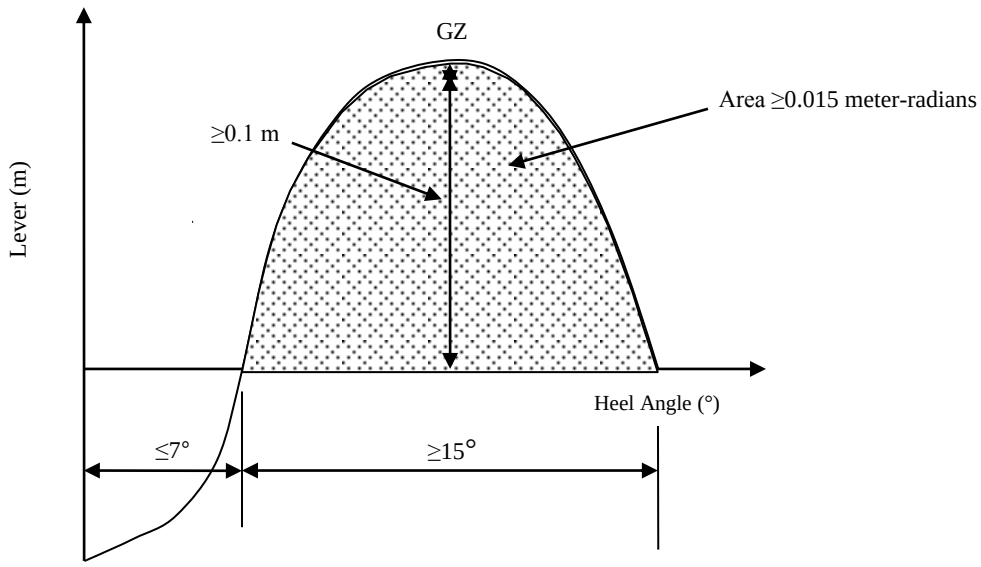
commercial yacht to float at a waterline which, at any point, is not less than 75 mm below the weather deck, freeboard deck, or bulkhead deck, if not concurrent.

.5 Minor damage shall be assumed to occur anywhere in the length of the commercial yacht, but not on a watertight bulkhead (transverse or longitudinal).

.6 Standard permeabilities shall be used in this assessment, as follows in Table 5 below:

Table 5	
Space	**Percentage Permeability**
Stores	60
Stores but not a substantial quantity thereof	95
Accommodation	95
Machinery	85
Liquids	95 or 0 whichever results in the more onerous requirements.

.7 In the damaged condition, the residual stability shall be such that any angle of equilibrium does not exceed 7º from the upright, the resulting GZ curve has a range to the down-flooding angle of at least 15º beyond any angle of equilibrium, the maximum GZ within that range is not less than 100 mm and the area under the GZ curve is not less than 0.015 meter-radians.



.8 A commercial yacht of 80 m in length and above shall meet a SOLAS one-compartment standard of subdivision calculated using the deterministic damaged stability methodology.

7.4 Elements of Stability

.1 The lightship displacement, vertical center of gravity (KG), and longitudinal center of gravity of a commercial yacht shall be determined from the results of an inclining experiment.

.2 An inclining experiment shall be conducted in accordance with a detailed standard as well as a specific test procedure that is approved by the Administrator or its representative. In addition, the experiment shall be conducted in the presence of the Administrator or its representative.

.3 The report of the inclining experiment and the lightship particulars derived shall be approved by the Administrator or its representative.

.4 At the discretion of the owner(s) or managing agent(s), and prior to approval of the lightship particulars by the Administrator or its representative, a margin for safety may be applied to the lightship displacement and KG calculated after the inclining experiment.

.5 Such a margin shall be clearly identified and recorded in the stability booklet.

.6 A formal record shall be kept in the stability booklet of alterations or modifications to the commercial yacht which affect lightship displacement and/or KGs.

.7 When sister yachts are built at the same shipyard, the Administrator or its representative may accept lightweight check on subsequent yachts to corroborate the results of the inclining experiment conducted on the lead commercial yacht of the class.

7.5 Stability Documents

.1 All commercial yachts shall be provided with a stability booklet for the Master that is approved by the Administrator or its representative, which contains sufficient information to enable the Master to operate the yacht in compliance with the applicable requirements contained in the Code.

.2 The stability booklet shall take into account the additional guidelines in accordance with the IS Code Part B, Chapter 3, Sections:

(a) 3.1 – Effect of free surfaces of liquid in tanks;

(b) 3.2 – Permanent ballast;

(c) 3.3 – Assessment of compliance with stability criteria;

(d) 3.4 – Standard conditions of loading to be examined;

(e) 3.5 – Calculation of stability curves; and

(f) 3.6 – Stability booklet.

.3 Commercial sailing yachts shall have a copy of the *Curves of Maximum Steady Heel Angle to Prevent Downflooding in Squalls* placed in a suitable position for the ready reference of the crew. This shall be a direct copy taken from that contained in the approved stability booklet.

.4 For commercial yachts where the damage stability has not been assessed, the following note shall be added to the approved stability booklet:

"This yacht has not been assessed for damage stability, and therefore might not remain afloat in the event of damage or flooding."

7.6 Major Refit or Alterations

.1 A commercial yacht with previously approved stability information, which undergoes a major refit or major alterations, shall be subjected to re-inclining, in accordance with §7.4 above, and a reassessment of the stability booklet.

.2 Changes in a commercial yacht's buoyancy (such as a stern extension) which results in a calculated change in displaced volume of more than 2%, shall require a complete reassessment of stability and newly approved stability information booklets.

.3 Reconfiguration of the commercial yacht's tank arrangement shall require a revision of the commercial yacht's stability booklet.

.4 Unless it can be clearly demonstrated that no major change has occurred, a lightweight check shall be carried out at an interval not exceeding five (5) years. The commercial yacht shall be re-inclined whenever, in comparison with the approved stability information, a deviation from the lightship displacement exceeding 2% or a deviation of the lightship longitudinal center of gravity exceeding 1% is found or anticipated.

8.0 COMMERCIAL SAILING YACHT RIGGING

8.1 General

.1 The condition of the rigging shall be monitored in accordance with an approved planned maintenance manual and schedule. The schedule shall include, in particular, regular monitoring of all the gear associated with safe work aloft and on the bowsprit (see §27.1).

.2 The overall sail area and spar weights and dimensions shall be documented in the commercial yacht's stability information book. Modifications that increase sail area and/or weights and dimensions must be reflected in an approved updating of the stability information booklet.

8.2 Masts and Spars

.1 Dimensions and materials of the masts and spars shall be certified as being in accordance with the recommendations of a Classification Society or the International Sailing Federation (ISF).

.2 The associated structure for masts and spars (including fittings, decks, and floors) shall be certified as being constructed as to absorb the forces involved.

8.3 Running and Standing Rigging

Running and standing rigging shall meet the following requirements:

(a) wire rope used for standing rigging (stays or shrouds) is not to be flexible wire rope (fiber rope core);

(b) the strength of all blocks, shackles, rigging screws, cleats and associated fittings, and attachment points shall exceed the breaking strength of the associated running or standing rigging; and

(c) chainplates for standing rigging shall be constructed to support and absorb the forces involved. Only one (1) shroud or stay should load an individual attachment point, unless the approved design specifically allows for more.

8.4 Sails

.1 Adequate means of reefing or shortening sail shall be provided.

.2 Category 0 and Category 1 commercial yachts shall either be provided with separate storm sails or have specific sails designated and constructed to act as storm canvas.

9.0 ACCOMMODATIONS

9.1 General

Sections 9.4 to 9.23 describe the minimum standards of accommodations, recreational facilities, food, and catering for new and existing commercial yachts as defined in §9.2 and §9.3.

9.2 New Commercial Yachts

The Administrator acknowledges that, due to the size and operational limitations, certain commercial yachts built after the date of entry into force of the MLC, 2006 ("new commercial yachts") cannot always fully comply with Title 3 of the MLC, 2006. In such cases, a substantially equivalent arrangement shall be submitted to the Administrator by the certifying Class or AR. The substantial equivalences or exemptions may be applied to the commercial yacht after consultation with the commercial yacht's seafarers and the commercial yacht owner/manager.

For further guidance on the MLC, 2006 certification, refer to §1.13 of this Chapter.

9.3 Existing Commercial Yachts

For commercial yachts built before the date of entry into force of MLC, 2006 ("existing commercial yachts"):

(a) Seafarer accommodations on board a commercial yacht should, to the extent reasonable and practicable, comply with the applicable standards set by the ILO conventions and any other international convention to which the RMI is a signatory and shall comply with the applicable requirements of the RMI Maritime Regulations (MI-108) and the RMI Maritime Act (MI-107). The applicable international conventions which have been adopted by the RMI are referenced in *International Maritime Conventions and Other Instruments Adopted by the Republic of the Marshall Islands* (MN 2-011-1).

(b) The Administrator acknowledges that existing commercial yachts may find it very difficult to comply with Title III of ILO Convention No. 92 and Title II of ILO Convention No. 133 in their entirety. In lieu of having to fully comply, the following are areas considered to be subject to the establishment of substantial equivalencies:

(i) Each owner shall meet, provide, and maintain minimum standards for safe, decent, and comfortable living accommodations, recreational facilities, food, catering, and water for seafarers which are required to work or live on board, or both, consistent with promoting the seafarer's health and well-being.

(ii) Attention is to be drawn to the achievement of appropriate standards for means of access and escape, lighting, heating, food preparation and storage, safety of movement about the commercial yacht, ventilation, and water services.

(iii) For smaller commercial yachts, in particular sailing yachts and motor yachts of less than 200 GT, the standards found in this §9.0 shall be applied as far as is reasonable and practicable to do so and to the satisfaction of the Administrator.

(iv) The crew accommodation shall not be located below the deepest waterline or within hazardous spaces and in no case forward of the collision bulkhead. Where it is not possible to locate the accommodation above the deepest waterline, an audible and visual flooding alarm shall be installed to alert persons and provide them with sufficient time to evacuate the accommodation.

9.4 Headroom and Ceiling Heights

.1 Adequate headroom shall be provided for all seafarers on board, taking the size and operation of the commercial yacht into consideration.

.2 In areas where a crewmember is expected to stand for a prolonged period of time, the headroom shall be not less than 190 cm. The Administrator may approve reduced heights in certain locations as long as this does not result in discomfort to the crewmember and will not cause a seafarer to inadvertently come in contact with the ceiling or appurtenances thereto during their normal course of work.

9.5 Hand Holds and Grab Rails

There shall be sufficient hand holds and grab rails within the accommodation to allow safe movement around the accommodation at all times.

9.6 Access/Escape Arrangements

See §11.4 below for commercial yachts less than 500 GT and §12.13 below for yachts of 500 GT or more, as applicable.

9.7 Lighting

.1 An electric lighting system shall be installed which is capable of supplying adequate light to all enclosed accommodation and working spaces. The system shall be designed and installed in accordance with §13.5 and §14.4 of this Chapter, as applicable.

.2 Sleeping rooms and mess rooms shall be lit by natural light, as far as is reasonable and practicable, and additionally provided with adequate artificial light.

9.8 Heating and Insulation

.1 Where appropriate, an adequate heating installation shall be provided in all accommodation spaces.

.2 External bulkheads of crew accommodation spaces shall be adequately insulated taking all climatic conditions into account. All machinery casings and all boundary bulkheads of galleys and other spaces in which heat is produced shall be adequately insulated where there is a possibility of resulting heat effects in adjoining accommodation or passageways. Measures shall also be taken to provide protection from heat effects of steam or hot-water service pipes, or both.

.3 Radiators or other external heating apparatus shall be shielded so as to avoid risk of fire or danger or discomfort to the occupants.

9.9 Noise and Vibration

Please reference §27.2 of this Chapter.

9.10 Food Preparation and Storage Facilities

.1 The galley shall be provided with a cooking stove fitted with fiddle bars and a sink and shall have adequate working surface for the preparation of food.

.2 The galley floor shall be provided with a non-slip surface and provide a good foothold.

.3 When a cooking appliance is gimbaled, a crash bar or other means to prevent personal injury shall protect it. Means shall be provided to lock the gimbal mechanism.

.4 Means shall be provided to allow the cook to work safely in a steadied position, with both hands free for working, when a commercial yacht's motion threatens safe working.

.5 Galley furniture and fittings shall be, as far as is reasonable and practicable, made of rust resistant material which is impervious to dirt and moisture.

.6 Secure and hygienic storage for food shall be provided.

.7 Separate storage for garbage that is intended to be disposed of ashore or otherwise shall be provided and such storage shall not be within the seafarer accommodation. Garbage shall be stored in a manner which avoids health and safety hazards, such as in sealed containers or bags.

.8 A mess room shall be provided and equipped with tables and appropriate seats, fixed or movable, sufficient to accommodate the greatest number of seafarers likely to use them at any one time.

.9 When seafarers are on board, the following shall be available at all times:

(a) a refrigerator, which shall be conveniently situated and of sufficient capacity for the number of persons using the mess room(s);

(b) facilities for hot beverages; and

(c) cool potable water facilities.

9.11 Water Services

.1 An adequate supply of fresh filtered drinking water shall be provided and piped to convenient positions throughout the accommodation spaces, especially the galley.

.2 Fresh water systems (including fresh water tanks and reception facilities) shall be of an approved marine type and maintained in a clean condition to protect contamination of the water.

.3 In addition, an emergency reserve supply of drinking water shall be carried, sufficient to provide at least two (2) liters (L) per person.

.4 If a commercial yacht cannot produce its own water supply, sterilization by ultraviolet (UV) is not acceptable on its own, but may be accepted as a secondary means. Disinfection arrangements are to be accepted by the Administrator (for this purpose silver ionization or chlorination would be considered acceptable).

.5 Any equipment for the production and filtering of fresh water shall be maintained in accordance with the manufacturer's instructions. It is recommended that a maintenance log be kept and maintained that includes any service or repairs carried out.

9.12 Sleeping Accommodation

.1 The maximum number of seafarers for each cabin shall be two (2) persons, unless unreasonable or not practicable. The Administrator may consider increasing the number of occupants in each cabin if there is no other alternative or there are additional special circumstances.

.2 Commercial yachts of 3,000 GT or more constructed on or after 20 August 2013 shall comply with the full requirements of standard A3.1 of the MLC, 2006.

.3 Commercial yachts up to but less than 3,000 GT:

(a) The Master, the Chief Engineer, and the Chief Navigating Officer should have cabins that, in addition to their sleeping rooms, include an adjoining sitting room, day room, or equivalent additional space. Where this is not practicable, an alternative comfortable shared sitting area may be provided.

(b) In single berth cabins for seafarers who are officers on commercial yachts where an adjoining sitting room, day room, or equivalent additional space to the sleeping room is provided, the sleeping room shall not be less than 4.5 m^2 including en-suite sanitary facilities.

(c) Single berth cabins for seafarers who are officers on commercial yachts where no adjoining sitting room, day room, or equivalent additional space are provided shall not be less than 7.5 m^2 including en-suite sanitary facilities.

(d) Seafarers who are officers should not be required to share a cabin.

(e) To the extent possible, an individual cabin shall be provided for each seafarer, the floor area of which shall not be less than 4.5 m^2 which may include en-suite sanitary facilities.

.4 Commercial yachts of less than 1,250 GT:

(a) Single berth seafarer's cabin without en-suite sanitary facilities shall have a floor area of not less than 3.6 m^2.

(b) Single berth seafarer's cabin provided with en-suite sanitary facilities, shall have a floor area of not less than 4.5 m^2 including the sanitary module.

(c) Double berth seafarer's cabin without en-suite sanitary facilities shall have a floor area of not less than 7 m^2.

(d) Double berth seafarer's cabin, where en-suite sanitary facilities are provided, shall have a minimum floor area of 6.2 m^2 for a commercial yacht of 500 GT to 1,149 GT

and not less than 7 m^2 for a commercial yacht of 1,150 GT and over, including the sanitary module.

(e) For seafarers who are officers for whom no adjoining sitting room, day room, or equivalent additional space are provided, a minimum floor area of not less than 15 m^2 for commercial yachts of 1,150 GT and over, including the sanitary module, shall be provided.

(f) En-suite sanitary facilities are considered to compensate for reduced floor area and form part of the floor area.

(g) Where the reduced floor areas in §9.12.4a to §9.12.4e above are adopted, the free floor area in the cabin shall be at least 1.45 m^2 per seafarer.

(h) Where the requirement of §9.12.4g above is not practical due to the hull shape or hull stiffening, but the arrangements in the cabin allow for a free movement of the upper part of the body equivalent to an area of 1.45 m^2, a reduced free floor area may be provided with the Administrator's agreement, but shall not be less than 1 m^2 per seafarer.

.5 Sleeping accommodations shall be situated and/or equipped as to provide appropriate levels of privacy for men and women.

.6 There shall be no access into sleeping rooms from spaces for machinery, galleys, paint rooms, or any store rooms and communal wash, shower, or toilet facilities. Bulkheads separating such places from sleeping rooms shall be efficiently constructed of steel or equivalent material and be watertight and gas-tight.

.7 A berth shall be provided for every seafarer on board, which has at least one (1) unobstructed access. Where considered appropriate, means for preventing the occupants from falling out shall be provided.

.8 The minimum inside dimensions of a berth shall be either:

(a) not less than 190 cm by 70 cm, without tapering; or

(b) at least 198 cm by 80 cm where tapering may be permitted when half of the length of the berth is not narrower than 50 cm.

.9 When one (1) berth is placed over another, a dust-proof bottom shall be fitted beneath the bottom mattress or spring bottom of the upper berth.

.10 Each berth shall be fitted with a comfortable mattress with cushioning bottom or a combined cushioning mattress, including a spring bottom or a spring mattress. The mattress and cushioning material used shall be made of approved material.

.11 Sleeping rooms shall be fitted with curtains or equivalent for the sidelights.

.12 In sleeping rooms, a shielded electric reading lamp shall be installed at the head of each berth.

.13 Each sleeping room shall be provided with a table or desk, which may be of the fixed, drop-leaf or slide-out type, and with comfortable seating accommodation.

9.13 Stowage Facilities for Personal Effects

.1 Every seafarer is to be provided with a clothes locker of ample space (minimum 475 L and a drawer or equivalent space of not less than 56 L). If the drawer is incorporated in the clothes locker then the combined minimum volume of the clothes locker shall be 500 L. The locker shall be fitted with a shelf and be able to be locked by the seafarer so as to ensure security and maintain privacy. Where the total required volume cannot be provided within the cabin, the Administrator may consider accepting secure facilities for the individual elsewhere within the seafarer accommodation, provided that within the cabin a minimum of 300 L storage space is provided for each individual seafarer.

.2 For commercial yachts less than 200 GT, storage facilities must be a minimum of 125 L per seafarer.

9.14 Sanitary Facilities

.1 Adequate sanitary toilet facilities shall be provided. The facilities shall be provided with a lockable door and at least one (1) water closet, one (1) sink (hand wash basin) and one (1) shower for every four (4) persons or part thereof.

.2 Hot and cold running fresh water shall be available in all wash places.

.3 Separate sanitary facilities shall be provided for men and women, where it is reasonable and practicable to do so.

.4 In commercial yachts where a sanitary system, including a holding tank, is provided, care shall be taken to ensure that there is no possibility of fumes from the tank finding their way back to a toilet, should the water seal at the toilet be broken.

.5 En-suite sanitary facilities are considered to compensate for reduced floor area and form part of the floor area. The en-suite sanitary facilities should be large enough to allow for the facilities to be used with the door closed and would not be expected to have a floor area of less than 1.2 m^2. Where the floor area of the en-suite sanitary facilities provided is greater than 1.2 m^2, the free floor area of the cabin may be reduced accordingly, but shall never be less than 1 m^2 per seafarer.

9.15 Recreational Facilities

.1 Seafarers shall be provided with appropriate recreational facilities, amenities, and services.

.2 Safe space(s) on open deck shall be provided to which the seafarers can have access when off duty, which are of adequate area having regard to the size of the commercial yacht and the number of seafarers on board.

9.16 Laundry Facilities

.1 For commercial yachts of 500 GT and above, appropriate laundry facilities shall be available.

.2 The laundry facilities provided for seafarer use shall include:

(a) washing machines supplied with hot and cold fresh water;

(b) drying machines or adequately heated and ventilated drying rooms; and

(c) irons and ironing boards or their equivalent.

9.17 Office Space

All commercial yachts of 500 GT and above shall be provided with separate offices or a common ship's office for use by deck and engine departments. The Administrator may consider an alternative equivalent arrangement after receipt of a formal request from the commercial yacht owner.

9.18 Diversity

In accordance with Title 3, Regulation 3.1 of the MLC, 2006, in the case of commercial yachts where there is need to take into account the interests of seafarers having differing and distinctive religious and/or social practices, fairly applied variations in respect of these standards may be permitted on the condition that such variations do not result in overall facilities less favorable than those which would result from the application of these minimum standards.

9.19 Onboard Inspections

.1 Weekly inspections shall be carried out on board by, or under the authority of, the Master to ensure that crew accommodations are clean, decently habitable, and maintained in a good state of repair.

.2 These inspections shall also be carried out, with respect to:

(a) the sufficiency of supplies of food and potable drinking water;

(b) the sufficiency and cleanliness of all spaces and equipment used for the storage and handling of food and potable drinking water; and

(c) the sufficiency and cleanliness of the galley and other equipment for the preparation and service of meals.

.3 The date and results of each such inspection shall be recorded in the Master's official logbook and be available for review.

9.20 Mosquito Protection

Commercial yachts regularly trading to mosquito-infested ports shall be fitted with appropriate devices.[3]

9.21 Securing of Heavy Equipment

.1 Appropriate provisions shall be provided to allow the securing of all heavy items of equipment such as ballast, batteries, cooking stove, etc.

[3] The World Health Organization provides the International Health Regulations and Guide to Ship Sanitation within which are guidelines to be taken into account when designing and constructing the yacht in order to control insects. These guidelines are also relevant to the sleeping quarters, mess rooms, and dining rooms, indoor recreational areas, as well as all food spaces, where yachts are in transit in areas where flies and mosquitoes are prevalent. Control measures that may be employed by the Master and crew are also provided in these guidelines.

.2 All stowage lockers containing heavy items shall have lids or doors that are capable of being securely fastened.

9.22 Hospital Facilities

.1 Commercial yachts of 500 GT and above and carrying 15 or more seafarers and engaged in a voyage of more than three (3) days duration shall provide separate hospital accommodation to be used exclusively for medical purposes.

.2 The hospital accommodation shall be designed to facilitate consultation and the giving of medical first aid and to help prevent the spread of infectious diseases.

.3 The arrangement of the entrance, berths, lighting, ventilation, heating, and water supply shall be designed to ensure the comfort and to facilitate the treatment of the occupants.

.4 Sanitary accommodations shall be provided for the exclusive use of the occupants of the hospital accommodation, either as part of the accommodation or in close proximity thereto. Such sanitary accommodation comprises a minimum of one (1) water closet, one (1) sink (hand wash basin), and one (1) shower.

.5 The Administrator may amend or waive the requirements of this §9.22 for commercial yachts of Category 1 or 2, as appropriate.

.6 Equivalent arrangements for the hospital accommodation shall be considered by the Administrator on a case-by-case basis.

9.23 Elevators (Lifts), Escalators, and Other Accommodation Lifting Devices

.1 Lifting devices shall be designed and constructed to recognized international standards.

.2 Elevators shall be provided with:

(a) suitable means of escape from the car and shaft; and

(b) emergency power and emergency lighting in the shaft and car; and

(c) means of alarm that shall provide an audible and visual alarm in the crew area and bridge; or

(d) means of fixed communication with the bridge and any other emergency control station(s); and

(e) a clear marking or sign that the elevator is not to be used in case of emergency.

.3 Before a lifting device is put into service, it must be tested and examined with regard to load and functions by a competent person and a certificate issued to the commercial yacht. The term "competent person" is as defined in the ILO Convention No. 152.

.4 Regular in service examination as required by the manufacturer shall be carried out by a manufacturer certified person.

10.0 FIRE SAFETY AND PREVENTION

10.1 Stowage of Gasoline, Aviation Fuel, and Other Highly Flammable Liquids

.1 Special provisions shall be provided for the safe stowage of gasoline, aviation fuel, and other highly flammable liquids having a flash point of less than 60° Celsius (C) (herein referred to as "flammable liquids") that may be carried in portable container(s), portable tank(s), permanently fitted tank(s), or other methods.

.2 Portable containers and/or tanks shall not be stored at a location which is exposed to the environment. Weather conditions, sea state, wind force, etc., are to be taken into consideration.

.3 Portable containers and/or tanks shall be kept to a minimum, containing no more than 150 L of flammable liquids in total. Means of carriage to consider for portable containers or tanks may be:

(a) recessed stowage with overboard chutes;

(b) lockers on deck, fully ventilated and with a fixed fire suppression system; or

(c) internal lockers with a fixed fire suppression system.

Such locations shall be clearly marked to identify that flammable liquids are contained within.

.4 Portable containers used for the carriage of flammable liquids shall be constructed to a recognized standard that is appropriate to the type of flammable liquid to be carried. Additionally, each container shall be clearly marked to indicate its contents.

.5 For commercial yachts fitted with permanent tanks for the carriage of flammable liquids, each tank should not contain more than 150 L. However, more may be carried in a separate tank so long as they are separated by at least one (1) bulkhead and the ventilation outlet for each tank is designed to sufficiently vent fuel vapors to separate locations at least 10 m apart from another. Commercial yachts fitted with storage tanks for aviation fuel shall comply with the requirements of *The Civil Aviation Authority's Standards for Offshore Helicopter Landing Areas* (CAP 437) Chapter 7 and in accordance with the Rules of Class.

.6 Enclosed spaces designated for the carriage of flammable liquids and/or spaces designed to contain vehicles, such as jet skis, automobiles, motorcycles, etc., with flammable liquids in their tanks shall be fitted as follows:

(a) with a fixed fire detection and fire alarm system complying with the requirements of SOLAS Chapter II-2 and the FSS Code, Chapter IX;

(b) a gas detection system shall be provided with audible and visible alarms on the bridge and where the crew can be easily alerted;

(c) a manually activated deluge water spray system of capacity to cover the total area of deck and container/vehicle support platform(s) (if any) at a rate of 3.5 L/m² per minute; or for a space in which the provision of a deluge system would be

inappropriate and or impractical, alternative provisions shall be made to the satisfaction of the Administrator;

(d) adequate provisions shall be provided for the drainage of water introduced to the space by §10.1.6c above. Drainage shall not lead to machinery or other spaces where a source of ignition may exist nor shall they drain directly overboard;

(e) no electrical equipment shall be installed where flammable mixtures are liable to collect unless such installation is:

(i) essential for operational purposes;

(ii) of a type which will not ignite the mixture concerned;

(iii) appropriate to the space concerned;

(iv) appropriately certified for safe usage;

(v) installed where a suitable gas detection system in accordance with §10.1.6b above exists; and

(vi) installed in accordance with the Rules of Class.

(f) Areas below the weather deck shall be provided with continuous pressure-positive ventilation at each level on which vehicles are transported.

.7 The location of flammable liquid storage, quantities of flammable liquid, and procedures to be followed in an emergency shall be approved and recorded on the fire safety plan and/or safety manual, as appropriate.

.8 Each ventilation system shall be totally independent and isolated from all other ventilated spaces:

(a) Each ventilation outlet shall not be less than 10 m separated from any opening to an accommodation space, machinery heating, ventilation and air conditioning (HVAC)/ventilation intake, accommodation HVAC/ventilation intake, or unprotected electrical source.

(b) The ventilation system shall be ducted and mechanically forced in order to continuously supply air to the space so that at least six (6) air changes per hour occur based on the volume of the empty space. Any reduction of the airflow shall be signaled by both audible and visual alarms on the navigating bridge and at the “in port” control station(s).

(c) The ventilation system shall be capable of rapid shut down and automatic closure in the event of fire.

(d) The exhaust intake shall be located at the lowest point possible in the space.

(e) Any fans located in the space or ducting for the space shall be certified safe for the flammable liquid and its vapor.

(f) The ventilation exhaust shall be provided with flame arresting protection.

10.2 Saunas

.1 The perimeter of the sauna shall be of "A" class boundaries and may include changing rooms, showers, and toilets. The sauna shall be insulated to an "A-60" for commercial yachts of 500 GT and above, A-30 for commercial yachts of less than 500 GT, and B-15 for Category 2 commercial yachts against other spaces except those inside of the perimeter.

.2 Bathrooms which have direct access to saunas shall comply with §10.2.1 above; except that, the door between the sauna and the bathroom is not required to comply with fire safety requirements.

.3 Paneling and/or linings made of wood may be used on the bulkheads and ceilings of the sauna, provided that:

(a) the ceiling above the oven/heater shall be lined with a non-combustible plate with an air gap of at least 30 mm; and

(b) the distance from the oven/heater to any combustible materials shall be at least 500 mm or the combustible materials shall be protected; for example, a noncombustible plate with an air gap of at least 30 mm.

.4 Wooden benches are permitted.

.5 The sauna door shall open outwards by pushing from within the sauna.

.6 An alarm or similar means which can be activated from inside the room in the case of an emergency shall be fitted.

.7 Electric heaters shall be fitted with a timer that will turn off the heating element within one (1) hour.

.8 All spaces within the perimeter of the sauna (including any bathroom(s) identified in §10.2.2 above) are to be protected by a fire detection system, alarm system, and a fire suppression system.

10.3 Steam Room (Thermal Suite)

.1 The perimeter of the steam room may include changing rooms, showers, bathroom, etc.

.2 Bathrooms which have direct access to steam rooms shall comply with §10.2.1 above; except that, the door between the steam room and the bathroom is not required to comply with fire safety requirements.

.3 If the steam generator is contained within the perimeter of the steam room, the perimeter shall be constructed of an A-0 class division (B-0 for Category 2 commercial yachts). If the steam generator is not contained within the perimeter, then the boundaries of the spaces shall be constructed of B-0 class divisions, and the space containing the steam generator shall be protected by A-0 class divisions (B-0 for Category 2 commercial yachts).

.4 If a steam room arrangement also contains a sauna then the requirements contained in §10.2 above are applicable, regardless of the steam generator location.

.5 All spaces within the perimeter are to be protected by a fire detection and alarm system and an automatic suppression system.

.6 An alarm or similar means which can be activated from inside the room in the case of an emergency shall be fitted.

10.4 Fire Control Plans

.1 A fire control plan shall be permanently and clearly exhibited in an easily visible and prominent place for the guidance of the Master and crew of the commercial yacht. The plan may be a combined fire and safety plan and shall be subject to review during plan approval processes by Class. The content of the plan shall adequately show the positions of stowage of the life-saving and fire appliances. Symbols used on the plan shall comply with the recognized international standard in accordance with *Fire Control Plans and Life-Saving Symbols* (MN 2-011-10); however, the symbols used in the fire control plan shall remain consistent to those used to identify the actual location of various equipment.

.2 For each deck, the plan shall, at a minimum, show:

(a) the position of control stations;

(b) sections of the commercial yacht which are enclosed respectively by "A" class divisions and "B" class divisions;

(c) location of flammable liquid storage (see §10.1 above);

(d) particulars of and locations of fire alarms, fire detection systems, suppression systems, and fixed and portable fire extinguishing appliances;

(e) fireman's outfit(s);

(f) means of access and emergency escapes for compartments and decks; and

(g) locations and means of control of systems and openings which should be closed down in a fire emergency.

.3 The plan required by §10.4.1 above shall be regularly updated. Updated alterations shall be applied to all copies of the plan without delay. Each copy of the plan shall include a list of alterations and the date on which each alteration was applied.

.4 A duplicate current plan shall be permanently stored in a prominently marked weather-tight enclosure readily accessible to assist non-yacht fire-fighting personnel who may board the commercial yacht in a fire emergency.

.5 Instructions relevant to the maintenance and operation of all the equipment and installations on board for the fighting and containment of fire shall be kept in one (1) document holder, readily available in an accessible location.

.6 All commercial yachts shall be provided with a training manual, as required. Refer to §27.3 below.

11.0 STRUCTURAL FIRE PROTECTION FOR COMMERCIAL YACHTS OF LESS THAN 500 GT

This section establishes the criteria by which a commercial yacht of less than 500 GT shall be built so that, in the case of a fire, it will be contained to the extent possible and that the commercial yacht will maintain its structural integrity for the longest period possible.

11.1 Boundaries

.1 Commercial yachts shall be subdivided into spaces by thermal and structural divisions having due regard to the fire risks of each space.

.2 "A" class divisions are those divisions formed by bulkheads and decks which comply with the following criteria:

(a) they are constructed of steel or other equivalent material;

(b) they are suitably stiffened;

(c) they are constructed so as to be capable of preventing the passage of smoke and flame to the end of the one (1) hour standard fire test; and

(d) they are insulated with approved non-combustible materials such that the average temperature of the unexposed side will not rise more than 140°C above the original temperature, nor will the temperature, at any one point, including any joint, rise more than 180°C above the original temperature, within the time listed in Table 6:

Table 6			
Class "A-60" 60 Minutes	**Class "A-30" 30 Minutes**	**Class "A-15" 15 Minutes**	**Class "A-0" 0 Minutes**

.3 "B" class divisions are those divisions formed by bulkheads, decks, ceilings, or linings which comply with the following criteria:

(a) they are constructed of approved non-combustible materials and all materials used in the construction and erection of "B" class divisions are non-combustible, with the exception that combustible veneers may be permitted provided they meet other appropriate requirements of this §11.0;

(b) they are constructed as to be capable of preventing the passage of flame to the end of the first half hour of the standard fire test; and

(c) they have an insulation value such that the average temperature of the unexposed side will not rise more than 140°C above the original temperature, nor will the temperature at any one point, including any joint, rise more than 225°C above the original temperature, within the time listed in Table 7:

Table 7	
Class "B-15" 15 Minutes	**Class "B-0" 0 Minutes**

.4 "C" class divisions are those divisions formed by bulkheads, decks, ceilings, or linings which are constructed of approved non-combustible materials.

.5 Table 8 below outlines the thermal and structural divisions suitable for the bulkheads and decks separating adjacent spaces on commercial yachts of less than 500 GT:

Table 8

Space	Category 0	Category 1 or 2
Category A Machinery Spaces (1)	A-30	B-15
Service Spaces (high risk) (2)	B-15	B-15
Control Stations (3)	B-15	B-0
Other Machinery Spaces (4)	B-0	C
Service Spaces (low risk) (5)		
Corridors (6)	B-0	C
Stairways (7)		
Accommodation Spaces (8)	C	C

Table 8 Notes:
The boundary of two (2) adjacent spaces shall be insulated in accordance with the higher fire integrity standard.

(1) Category A Machinery Spaces – Spaces so defined in SOLAS regulation II-2/3.31.

(2) Service Spaces (high risk) – Galleys, pantries containing cooking appliances, paint and lamp rooms, lockers and store-rooms having areas of 4 m^2 or more, spaces for the storage of flammable liquids, and workshops other than those forming part of the machinery spaces.

(3) Control Stations:

- Spaces containing emergency sources of power and lighting
- Wheelhouse and chartroom
- Spaces containing the yacht's radio equipment
- Fire control stations
- Control room for propulsion machinery when located outside the machinery space
- Spaces containing centralized fire alarm equipment

(4) Other Machinery Spaces – Spaces so defined in SOLAS regulation II-2/3.30, excluding machinery spaces of Category A.

(5) Service Spaces (low risk) – Lockers and storerooms not having provisions for the storage of flammable liquids and having areas less than 4 m^2, drying rooms, and laundries.

(6) Corridors – Passenger and crew corridors.

(7) Stairways – Interior stairways, elevators, totally enclosed emergency escape trunks and enclosures thereto; other than those within machinery spaces; in this respect, a stairway which is enclosed only at one level shall be regarded as part of the space from which it is not separated by a fire door.

(8) Accommodation Spaces – Spaces so defined in SOLAS regulation II-2/3.1, excluding corridors.

.6 Fire Risk Categories

(a) To determine the appropriate fire integrity standards to be applied to divisions between adjacent spaces, such spaces shall be classified according to their fire risk as shown in Categories (1) to (8) in Table 8 above.

(b) Where the contents and use of a space are such that there is a doubt as to its classification for the purpose of this regulation, or where it is possible to assign two (2) or more classifications to a space, it shall be treated as a space within the relevant Category having the most stringent boundary requirements. Smaller, enclosed rooms within a space that have less than 30% communicating openings to that space are considered separate spaces.

(c) The fire integrity of the boundary bulkheads and decks of such smaller rooms shall be as prescribed in Table 8. The title of each Category is intended to be inclusive rather than restrictive. The number preceding each Category refers to the applicable column or row in the table.

.7 When boundaries are constructed of materials other than steel (or steel equivalent) they may be accepted by the Administrator so long as calculation methods are used, where appropriate, to determine if the boundary is:

(a) capable of preventing the passage of smoke and flame to the end of the 60 minute standard fire test; and

(b) be so insulated where necessary with a suitable non-combustible material, that if the division is exposed to a standard fire test, the average temperature on the unexposed side of the division should not increase by more than 139°C above the initial temperature within a period of 30 minutes.

.8 Steel divisions may be insulated on the side of the space posing the highest risk of fire; however, divisions of other materials shall have insulation placed on both sides.

.9 Galleys shall be enclosed with "B-15" class divisions. Where mess rooms may be open or otherwise directly attached to the galley, it shall be considered of the same space.

.10 In spaces where contamination of insulation by oil residues is possible, means shall be provided to protect the insulation. For commercial yachts built of wood, or other impervious materials, similar care shall be taken.

.11 Any opening in an "A" or "B" class division shall have permanently attached means of securing them when closed and shall provide resistance to fire (as well as to the passage of smoke for "A" class divisions) equivalent to that of the bulkheads in which the doors are fitted.

.12 Windows should not be fitted in machinery space boundaries.

.13 Penetrations in fire-resisting divisions.

(a) Where "A" class divisions are penetrated for the passage of electric cables, pipes, trunks, ducts, etc., or for girders, beams, or other structural members, arrangements shall be made to ensure that the fire resistance is not impaired.

(b) Where "B" class divisions are penetrated for the passage of electric cables, pipes, trunks, ducts, etc., or for the fitting of ventilation terminals, lighting fixtures, and similar devices arrangements are to be made to ensure that the fire resistance is not impaired.

(c) Where "A" class divisions are not required to be insulated, it is to be ensured that the heat from a fire is not transmitted through the intersections and terminal points of the divisions or penetration to uninsulated boundaries by use of a fire tested penetration device, or other means.

.14 Where the insulation installed does not achieve the above, arrangements are to be made to prevent this heat transmission by insulating the horizontal and vertical boundaries or penetrations for a distance of 450 mm.

11.2 Arrangement of Fuel Oil Tanks and Piping

.1 For guidance on installation of fuel oil tanks and piping, see §13.2 of this Chapter.

.2 Fuel tanks and associated pipes and fittings shall be located so as to reduce to a minimum the risk of fire or explosion.

.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.

.4 Fuel filter bowls shall be made of metal.

.5 Surfaces that may exceed 220°C shall be insulated. Any piping connection that may, in the event of failure, drip or spray oil onto the hot surface shall be covered with approved splash tape.

.6 Spaces containing oil tanks and piping shall be provided with an adequate and efficient ventilation system.

.7 Fuel oil transfer pumps, purifiers, or other pumps used for the transport of oil under pressure shall be fitted with an emergency shut off outside the space.

.8 Oil fuel tanks situated within, or adjacent to, the boundaries of Category A machinery spaces are not to contain oil fuel having a flashpoint of less than 60°C.

11.3 Ventilation

.1 The ventilation systems provided in way of machinery spaces and galleys are to be designed to sufficiently prevent the accumulation of flammable gasses and be capable of being shut down from outside of the space.

(a) All inlets and outlets of the ventilation system shall be capable of being closed from outside the space.

(b) The locations to operate the shut off and closure as required shall be such that they are easily accessible in case of an emergency.

.2 Ventilation ducts that feed or exhaust air from high risk areas such as machinery spaces, garages containing vehicles with fuel in their tanks, fuel storage lockers, etc., shall not pass through an accommodation space.

If this requirement is unachievable, the ducts shall be constructed of steel or other equivalent material and insulated to the same fire integrity as the space it serves. In addition, automatic fire dampers shall be fitted to the ducts where they pass through the high risk space into the accommodation space; they shall also be capable of being closed manually.

.3 Ventilation ducts that feed or exhaust air from accommodation, service, and control spaces shall not pass through high risk areas such as machinery spaces, garages containing vehicles with fuel in their tanks, fuel storage lockers, etc.

If this requirement is unachievable, the ducts shall be constructed of steel or other equivalent material and insulated to the same fire integrity as the high risk area through which it passes. In addition, automatic fire dampers shall be fitted to the ducts, where they pass through the accommodation space into the high risk area, on the accommodation side of the ducts that pass through the high risk area. The automatic fire dampers shall also be capable of being closed manually.

.4 Storage rooms that contain highly flammable products shall be provided with ventilation that is separate and independent of other ventilation systems. The inlets and outlets of the systems shall be positioned as to pose the lowest risk possible and shall be fitted with flame arrestors.

.5 Ventilation serving Category A machinery spaces shall be separate and independent of systems serving other spaces.

.6 Ventilation serving enclosed spaces containing free standing fuel tanks shall be separate and independent of systems serving other spaces.

.7 Ventilation shall be provided for areas where batteries are stored in order to prevent dangerous accumulations of flammable gas.

.8 The ducts of exhaust ventilation for clothing driers shall be provided with access at suitable locations for cleaning and inspection.

.9 Exhaust ducts from galley ranges shall be fitted with suitable means for extinguishing and containing the fire within the duct. This system shall be to the satisfaction of the Administrator or its representative.

11.4 Means of Escape

.1 In order to aid with the escape of persons on board in the case of an emergency, means shall be provided to provide quick and safe access to the life raft embarkation deck.

.2 The arrangement of the hull shall be such that all under deck compartments are provided with a satisfactory means of escape. In the case of the under deck and above deck accommodations and engine room spaces, two (2) means of escape from every restricted space or group of spaces shall be provided.

Only in exceptional cases will one (1) means of escape be accepted by the Administrator, and then only if the means of escape provided does not require passage through a

hazardous area, e.g., a galley or engine room, leads directly to the open air, and it can be demonstrated that the provision or retrofitting of a second means of escape would be impractical or detrimental to the overall safety of the commercial yacht.

.3 Where a second means of escape is via a sealed window, then breakable glass, not polycarbonate or laminated glass, which can be readily broken with a conveniently located crash hammer, may be accepted. Weatherdeck flush hatches may be used as passenger or crew area secondary escapes, but as they are more prone to leakage and more difficult to use, their fitting should be avoided if possible. The Administrator may consider on a case by case basis, a second means of escape from an accommodation space that leads via a hatch into another space. In such case, the minimum clear opening of this hatch shall be not less than 600 mm by 600 mm.

.4 All doors in escape routes are to be able to be opened from either side. In the direction of escape, they are to be able to open without the use of a key. All handles on the inside of weather-tight doors and hatches are to be non-removable.

.5 In the accommodation, where concealed escapes and routes may be used, they both are to be clearly marked.

.6 All escapes and escape routes shall be kept clear of any other item or fitting that may impede escape during an emergency.

.7 The design of the escapes and escape routes shall be in accordance with international conventions and codes.

11.5 Materials

.1 Insulating materials shall be non-combustible except in refrigerated compartments. Vapor barriers and adhesives used in conjunction with insulation, as well as the insulation of pipe fittings for cold service systems, need not be of non-combustible materials, but they shall be kept to the minimum quantity practicable and their exposed surfaces shall have low flame-spread characteristics.

.2 Pipes that penetrate “A” or “B” class divisions are to be of an approved material that takes into account the temperature such divisions are required to withstand as well as the liquid (i.e. oil or other combustible) carried.

.3 Materials that may be readily rendered ineffective by heat are not to be used for overboard scuppers, sanitary discharges, and other outlets which are close to the waterline, the failure of which would give rise to danger of flooding. The requirements of the 2010 FTP Code shall be applied.

.4 Except for spaces fitted with sprinklers or equivalent approved fixed fire extinguishing systems, upholstery composites (fabric in association with any backing or padding material) used throughout the commercial yacht shall be approved in accordance with the 2010 FTP Code, Annex 1, Part 8, or an equivalent standard.

.5 Organic foams used in upholstered furniture and mattresses shall be of the combustion-modified type satisfying the fire test procedures of the 2010 FTP Code, Annex 1, Part 9, or an equivalent standard.

.6 Except for spaces fitted with sprinklers or equivalent approved fixed fire extinguishing systems, suspended textile materials such as curtains or drapes shall be approved in accordance with the 2010 FTP Code, Annex 1, Part 7, or an equivalent standard.

11.6 Open Flame Gas Appliances

An open flame gas appliance provided for cooking, heating, or any other purpose shall comply with the requirements of ISO 10239:2008 or an equivalent standard.

11.7 Deep Fat Cooking Equipment

The provisions of SOLAS regulation II-2/10.6.4 should be complied with as far as is reasonable and practicable for all deep fat cooking equipment installed.

11.8 Paints, Varnishes, and Other Finishes

Paints, varnishes, and other finishes which pose an undue fire hazard shall not be used in the engine room, galley, or in other areas of high fire risk. Elsewhere such finishes should be kept to a minimum.

11.9 Fire Detection and Fire Alarm Systems

.1 A fire detection and fire alarm system shall be installed in accordance with SOLAS regulation II-2/7 and the FSS Code, Chapter 9. The system shall be provided with a control panel located within the wheelhouse and audible alarms provided in locations where they are most likely to be heard. The system shall be comprised of smoke, heat, or other suitable detectors fitted in the machinery space and galley as a minimum; and in commercial yachts of 30 m in Load Line Length and over, suitable detectors shall be fitted in all enclosed spaces except those that afford no substantial fire risk such as toilets, bathrooms, void spaces, etc. Manually operated call points shall be placed to ensure a readily accessible means of notification.

.2 In the exceptional case of a space or compartment having only one (1) means of escape (§11.4 above), the integrity of the escape route shall be protected by the installation of smoke detectors that give instantaneous early warning of danger by means of audible and visible alarms in the space or compartment, audible throughout the commercial yacht.

.3 The installation of fixed fire extinguishing systems not required by this Code shall be done to the satisfaction of the Administrator.

12.0 STRUCTURAL FIRE PROTECTION FOR COMMERCIAL YACHTS OF 500 GT AND ABOVE

This section establishes the criteria by which a commercial yacht of 500 GT and above should be built so that, in the case of a fire, it will be contained to the extent possible and that the commercial yacht will maintain its structural integrity for the longest period possible.

12.1 Boundaries

.1 Commercial yachts shall be subdivided into spaces by thermal and structural divisions having due regard to the fire risks of each space.

.2 "A" class divisions are those divisions formed by bulkheads and decks which comply with the following criteria:

(a) they are constructed of steel or other equivalent material;

(b) they are suitably stiffened;

(c) they are constructed so as to be capable of preventing the passage of smoke and flame to the end of the one (1) hour standard fire test; and

(d) they are insulated with approved non-combustible materials such that the average temperature of the unexposed side will not rise more than 140°C above the original temperature, nor will the temperature, at any one (1) point, including any joint, rise more than 180°C above the original temperature, within the time listed in Table 9:

Table 9			
Class "A-60" 60 Minutes	**Class "A-30" 30 Minutes**	**Class "A-15" 15 Minutes**	**Class "A-0" 0 Minutes**

.3 "B" class divisions are those divisions formed by bulkheads, decks, ceilings, or linings which comply with the following criteria:

(a) they are constructed of approved non-combustible materials and all materials used in the construction and erection of "B" class divisions are non-combustible, with the exception that combustible veneers may be permitted provided they meet other appropriate requirements of §12.0 to §12.27 of this Chapter;

(b) they are constructed as to be capable of preventing the passage of flame to the end of the first half hour of the standard fire test;

(c) they have an insulation value such that the average temperature of the unexposed side will not rise more than 140°C above the original temperature, nor will the temperature at any one (1) point, including any joint, rise more than 225°C above the original temperature, within the time listed in Table 10:

Table 10	
Class "B-15" 15 Minutes	**Class "B-0" 0 Minutes**

.4 "C" class divisions are those divisions formed by bulkheads, decks, ceilings, or linings which are constructed of approved non-combustible materials.

12.2 Fire Integrity

.1 Tables 11 and 12 below outline the thermal and structural divisions suitable for the bulkheads and decks of commercial yachts of 500 GT and above. In addition to the tables, the fire integrity of bulkheads and decks shall be as per the relevant sections found in this §12.0.

(a) In determining the applicable fire integrity standard of a boundary between two (2) spaces within a main vertical zone or horizontal zone which is protected by a fire suppression system between such zones, both of which are so protected, the lesser of the two (2) values given in the Tables below shall apply.

(b) Where a zone protected by an automatic sprinkler system and a zone which is not protected meet within accommodation and service spaces, the higher of the two (2) values given in Tables 11 and 12 below shall apply to the division between the zones.

Table 11: Fire Integrity of Bulkheads Separating Adjacent Spaces									
Space	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Control Station (1)	A-0 [c]	A-0	A-60	A-0	A-15	A-60	A-15	A-60	*
Corridors (2)	-	C [d]	B-0 [d]	A-0 [a] B-0 [d]	B-0 [d]	A-60	A-0	A-0	*
Accommodation Spaces (3)	-	-	C [d]	A-0 [a] B-0 [d]	B-0 [d]	A-60	A-0	A-0	*
Stairways (4)	-	-	-	A-0 [a] B-0 [d]	A-0 [a] B-0 [d]	A-60	A-0	A-0	*
Service Spaces (low risk) (5)	-	-	-	-	C [d]	A-60	A-0	A-0	*
Category A Machinery Spaces (6)	-	-	-	-	-	*	A-0	A-60	*
Other Machinery Spaces (7)	-	-	-	-	-	-	A-0 [b]	A-0	*
Service Spaces (high risk) (8)	-	-	-	-	-	-	-	A-0 [b]	*
Open Decks (9)	-	-	-	-	-	-	-	-	*

Table 12: Fire Integrity of Decks Separating Adjacent Spaces									
Spaces Above Spaces Below	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Control Station (1)	A-0	A-0	A-0	A-0	A-0	A-60	A-0	A-0	*
Corridors (2)	A-0	*	*	A-0	*	A-60	A-0	A-0	*
Accommodation Spaces (3)	A-60	A-0	*	A-0	*	A-60	A-0	A-0	*
Stairways (4)	A-0	A-0	A-0	*	A-0	A-60	A-0	A-0	*
Service Spaces (low risk) (5)	A-15	A-0	A-0	A-0	*	A-60	A-0	A-0	*
Category A Machinery Spaces (6)	A-60	A-60	A-60	A-60	A-60	*	A-60 [e]	A-60	*
Other Machinery Spaces (7)	A-15	A-0	A-0	A-0	A-0	A-0	*	A-0	*
Service Spaces (high risk) (8)	A-60	A-0	A-0	A-0	A-0	A-60	A-0	A-0	*
Open Decks (9)	*	*	*	*	*	*	*	*	*

Notes (to be applied to both Tables 11 and 12 as appropriate):

a. Where spaces are of the same numerical Category and superscript b appears, a bulkhead or deck of the rating shown in the Tables is only required when the adjacent spaces are for a different purpose; e.g., in Category (9), a galley next to a galley does not require a bulkhead but a galley next to a paint room requires an "A-0" bulkhead.

b. Bulkheads separating the wheelhouse and chartroom from each other may be "B-0" rating.

c. See the remainder of §12.0 for clarification of what applies if the item is not listed in the table.

d. For the application of §12.7.1, "B-0" and "C," where appearing in Table 11, should be read as "A-0."

e. Fire insulation need not be fitted if the machinery space in Category (7), in the opinion of the Administrator or its representative, has little or no fire risk.

* Where an asterisk appears in Tables 11 and 12, the division is required to be of steel or other equivalent material but is not required to be of "A" class standard. For the application of §12.7.1 an asterisk, where appearing in Table 12, except for Category (9), should be read as "A-0."

(1) Control Stations:

- Spaces containing emergency sources of power and lighting
- Wheelhouse and chartroom
- Spaces containing the yacht's radio equipment
- Fire control stations
- Control room for propulsion machinery when located outside the machinery space
- Spaces containing centralized fire alarm equipment

(2) Corridors – Passenger and crew corridors.

(3) Accommodation Spaces – Spaces so defined in SOLAS regulation II-2/3.1, excluding corridors.

(4) Stairways – Interior stairways, elevators, totally enclosed emergency escape trunks and enclosures thereto; other than those within machinery spaces; in this respect, a stairway which is enclosed only at one level shall be regarded as part of the space from which it is not separated by a fire door.

(5) Service Spaces (low risk) – Lockers and storerooms not having provisions for the storage of flammable liquids and having areas less than 4 m^2, drying rooms, and laundries.

(6) Category A Machinery Space – Spaces so defined in SOLAS regulation II-2/3.31.

(7) Other Machinery Spaces – Spaces so defined in SOLAS regulation II-2/3.30, excluding machinery spaces of Category A.

(8) Service Spaces (high risk) – Galleys, pantries containing cooking appliances, paint and lamp rooms, lockers and storerooms having areas of 4 m^2 or more, spaces for the storage of flammable liquids, and workshops other than those forming part of the machinery spaces.

(9) Open Decks – Open deck spaces and enclosed promenades having little or no fire risk. Such spaces should be primarily naturally ventilated by permanent means. Air spaces (the space outside superstructures and deckhouses).

12.3 Fire Risk Categories

.1 To determine the appropriate fire integrity standards to be applied to divisions between adjacent spaces, such spaces shall be classified according to their fire risk as shown in Categories (1) to (9) above.

.2 Where the contents and use of a space are such that there is a doubt as to its classification for the purpose of this regulation, or where it is possible to assign two (2) or more classifications to a space, it shall be treated as a space within the relevant Category having the most stringent boundary requirements. Smaller, enclosed rooms within a space that have less than 30% communicating openings to that space are considered separate spaces.

.3 The fire integrity of the boundary bulkheads and decks of such smaller rooms shall be as prescribed in Tables 11 and 12 above. The title of each Category is intended to be inclusive rather than restrictive. The number preceding each Category refers to the applicable column or row in the tables.

.4 Continuous "B" class ceilings or linings, in association with the relevant decks or bulkheads, may be accepted as contributing, wholly or in part, to the required insulation and integrity of a division.

.5 External boundaries, which are required to be of steel or other equivalent material, may be pierced for the fitting of windows and side scuttles provided that there is no requirement for such boundaries of passenger ships to have "A" class integrity. Similarly, in such boundaries which are not required to have "A" class integrity, doors may be constructed of materials which are to the satisfaction of the Administrator.

12.4 Openings in "A" Class Divisions

.1 Except for hatches between store and baggage spaces, and between such spaces and the weather decks, openings shall be provided with permanently attached means of closing which shall be at least as effective for resisting fires as the divisions in which they are fitted.

.2 The construction of doors and door frames in "A" class divisions, together with the means of securing them when closed, shall provide resistance to fire as well as the passage of smoke and flame, as far as is reasonable and practicable, equivalent to that of the bulkheads in which the doors are situated.

.3 The doors and door frames referred to in §12.4.2 above shall be constructed of steel or other equivalent material. Watertight doors need not be insulated.

.4 Each door shall be able to be opened and closed from each side of the bulkhead by one (1) person only.

.5 Fire doors in main vertical zone bulkheads, galley boundaries, and stairway enclosures, other than power-operated watertight doors and those which are normally locked, shall satisfy the following requirements.

(a) The doors shall be of the self-closing type and capable of closing against an inclination of 3.5° opposing closure.

(b) The speed of door closure shall be controlled to prevent undue danger to persons, but in no case shall the speed of the door closure be greater than 40 seconds.

(c) The doors, except those that are normally closed or are for an emergency escape trunk, shall be capable of remote release from a control station, either simultaneously or in groups, and shall also be capable of manual release individually from a position at both sides of the door.

(d) Doors with hold-back devices not subject to control station release are not permitted.

(e) A door closed remotely from the central control station shall be capable of being reopened from both sides of the door by local control, after which, the door shall automatically close again.

(f) The release mechanism of the doors shall be so designed that they will automatically close in the event of disruption of the control system; however, approved power-operated watertight doors will be considered acceptable for this purpose.

(g) Local power accumulators for hydraulically operated doors shall be provided in the immediate vicinity of the doors to enable the doors to be operated at least 10 times (fully opened and closed) after disruption of the control system or central power supply using the local controls.

(h) Electrically driven watertight doors shall have the means to be operated from an emergency source of power and each door shall be capable of being operated locally by hand.

(i) The fire door indicator panel in the control station shall be equipped so as to indicate whether each door is closed.

(j) Disruption of the control system or central power supply at one (1) door shall not impair the safe functioning of the other doors.

(k) Remote-released sliding or power-operated doors shall be equipped with an alarm that sounds at least five (5) seconds but no more than 10 seconds after the door is released from the central controls station and before the door begins to move. This alarm shall be such that it continues sounding until the door is completely closed.

(l) A door designed to reopen upon contacting an object in its path shall reopen not more than 1 m from the point of contact.

(m) Double-leaf doors equipped with a latch necessary for their fire integrity shall have a latch that is automatically activated by the operation of the doors when released by the system.

(n) The components of the local control system shall be readily accessible for maintenance and adjusting.

(o) When double swing doors are permitted by the Administrator, they shall have a latch arrangement that is automatically engaged by the operation of the door release system.

(p) Power-operated doors shall be provided with a control system of an Approved Type which shall be able to operate in case of fire and be in accordance with the 2010 FTP Code. This system shall satisfy the following requirements:

(i) the control system shall be able to operate the door at a temperature of at least 200°C for at least 60 minutes, served by the power supply;

(ii) the power supply for all other doors not subject to fire shall not be impaired; and

(iii) at temperatures exceeding 200°C the control system shall be automatically isolated from the power supply and shall be capable of keeping the door closed up to a temperature of at least 945°C.

.6 When a space is protected by an automatic sprinkler system complying with the provisions of §12.16 below or fitted with a continuous "B" class ceiling, openings in decks not forming steps in main vertical zones nor bounding horizontal zones shall be closed reasonably tight and such decks shall meet the "A" class integrity requirements in so far as is reasonable and practicable.

.7 Where "A" class divisions are penetrated by such items as electric cables, pipes, trunks or ducts, or for girders, beams, or other structural members, arrangements shall be made to ensure that the fire resistance is not impaired.

12.5 Openings in "B" Class Divisions

.1 Doors and door frames in "B" class divisions and means of securing them shall provide a method of closure which shall have resistance to fire, to the extent reasonable and practicable, equivalent to that of the divisions, except that a ventilation opening may be permitted in the lower portion of such doors. Where such openings are in or under a door, the total net area of the opening(s) shall not exceed 0.05 m^2. All ventilation openings shall be fitted with a grill made of non-combustible material. Doors shall be of non-combustible construction as far as is reasonable and practicable.

.2 The requirements for "B" class division of the outer boundaries of a commercial yacht shall not apply to glass partitions, windows, and side scuttles. Similarly, the requirements for "B" class divisions shall not apply to exterior door.

.3 When a sprinkler system complying with the provisions of §12.16 below is fitted:

(a) openings in decks not forming steps in main vertical zones nor bounding horizontal zones shall be closed reasonably tight and such decks shall meet the "B" class integrity requirements, as far as is reasonable and practicable; and

(b) openings in corridor bulkheads of "B" class materials shall be protected in accordance with the provisions of §12.5.1 above.

12.6 Windows and Side Scuttles

.1 All windows and side scuttles in bulkheads within accommodation, service spaces, and control stations shall be so constructed to preserve the integrity requirements of the type of bulkheads in which they are fitted.

.2 Notwithstanding the requirements of Tables 11 and 12 in §12.2 above, all windows and side scuttles in bulkheads separating accommodation, service spaces, and control stations

from weather shall be constructed with frames of steel or other suitable material. A metal glazing bead or angle shall retain the glass.

.3 With regard to conditions of assignment for windows and side scuttles/portlights, see §5.5 and §5.6 above.

12.7 Main Vertical Zones and Horizontal Zones

.1 Hull superstructure and deckhouses in way of accommodation and service spaces shall be subdivided into main vertical zones by "A" class divisions. These divisions shall have insulation values in accordance with Tables 11 and 12 in §12.2 above.

.2 As far as reasonable and practicable, the bulkheads forming the boundaries of the main vertical zones shall be in line with watertight subdivision bulkheads; or

.3 As far as reasonable and practicable, the bulkheads forming the boundaries of the main vertical zones above the bulkhead deck shall be in line with watertight subdivision bulkheads situated immediately below the bulkhead deck. The length and width of main vertical zones may be extended to a maximum of 48 m in order to bring the ends of main vertical zones to coincide with watertight subdivision bulkheads or in order to accommodate a large public space extending for the whole length of the main vertical zone provided that the total area of the main vertical zone is not greater than 800 m^2 on any deck. The length or width of a main vertical zone is the maximum distance between the furthermost points of the bulkheads bounding it.

.4 Such bulkheads shall extend from deck to deck and to the shell or other boundaries.

.5 When a main vertical zone is subdivided by "A" class divisions for the purpose of providing an appropriate barrier between spaces protected by a fire suppression system and a space which is not protected, the divisions shall be insulated in accordance with the class division values given in Tables 11 and 12 in §12.2 above.

12.8 Bulkheads Within a Main Vertical Zone

.1 All bulkheads within accommodation and service spaces which are not required to "A" class divisions shall be at least "B" class or "C" class divisions as prescribed in Tables 11 and 12 in §12.2 above.

.2 All corridor bulkheads where not required to be "A" class shall be "B" class divisions which shall extend from deck to deck except:

(a) when continuous "B" class ceilings or linings are fitted on both sides of the bulkhead, the portion of the bulkhead behind the continuous ceilings or linings shall be of material which, in thickness and composition, is acceptable in the construction of "B" class divisions, but which shall be required to meet "B" class standards so far as is reasonable and practicable in the opinion of the Administrator; and

(b) in the case of a commercial yacht protected by an automatic fire suppression system complying with the provisions of the FSS Code, the corridor bulkheads of "B" class materials may terminate at a ceiling in the corridor provided such a ceiling is of material which, in thickness and composition, is acceptable in the construction of "B" class standards. All doors and frames in such bulkheads shall be so constructed and erected to provide equivalent fire resistance.

.3 All bulkheads required to be "B" class divisions, except corridor bulkheads, shall extend from deck to deck and to the shell or other boundaries unless continuous "B" class ceilings or linings are fitted on both sides of the bulkhead, in which case the bulkhead may terminate at the continuous ceiling or lining.

.4 All such divisions may be faced with combustible materials in accordance with the provisions of §12.1.3 above.

12.9 Structural Integrity

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

.2 However, in cases where any part of the structure is of aluminum alloy, the following shall apply.

(a) Insulation of aluminum alloy components of "A" or "B" class divisions, except structure that, in the opinion of the Administrator, is non-load-bearing, shall be such that the temperature of the structural core does not rise more than 200°C above the ambient temperature at any time during the applicable fire exposure to the standard fire test;

(b) Special attention shall be given to the insulation of aluminum alloy components of columns, stanchions, and other structural members required to support lifeboat and life raft stowage, launching, and embarkation areas, and "A" and "B" class divisions to ensure that for members:

(i) supporting lifeboat and life raft areas and "A" class divisions, the temperature rise limitation specified in (a) shall apply at the end of 60 minutes; and

(ii) supporting "B" class divisions, the temperature rise limitation specified in (a) shall apply at the end 30 minutes.

(iii) aluminum alloy components of divisions that are required to be equivalent to steel (identified by an asterisk in Tables 11 and 12 in §12.2 above) shall be insulated with 25 mm of mineral wool approved for use in "A" class divisions or with an equivalent insulation acceptable to the Administrator.

.3 Crowns and casings of a Category A machinery space shall be of steel construction; where this is not reasonable or practical they are to be "A-60" class divisions. In either case, any openings therein shall be arranged and protected to prevent the spread of fire.

.4 The floor plating, its supporting structure, and stairs in Category A machinery spaces shall be made of steel.

.5 Materials readily rendered ineffective by heat shall not be used for overboard scupper, sanitary discharges, and other outlets which are close to the waterline and where the failure of the material in the event of fire would give rise to danger of flooding.

.6 For composite structures, the insulation is to be such that the temperature of the laminate does not rise more than the minimum temperature of deflection under load of the resin at any time during the specified fire exposure. This insulation is to be applied on all sides except for the upper sides of decks and the outside of the yacht.

(a) Special attention shall be given to the insulation of composite components of columns, stanchions, and other structural members required to support lifeboat and life raft stowage, launching, and embarkation areas, and "A" and "B" class divisions to ensure that:

(i) when supporting lifeboat and life raft areas and "A" class divisions, the temperature rise limitation specified in §12.9.2 above shall apply at the end of one (1) hour; or

(ii) when supporting "B" class divisions, the temperature rise limitation specified in §12.9.2 above shall apply at the end of half an hour.

.7 For structures in contact with seawater, the required insulation shall extend to at least 300 mm below the lightest waterline.

.8 Fire divisions using steel equivalent or alternative forms of construction may be accepted if it can be demonstrated to the satisfaction of the Administrator that the material by itself, or due to non-combustible insulation provided, has the fire resistance properties equivalent to the "A" or "B" class divisions standards.

.9 Insulation required by §12.9.8 above is to be such that the temperature of the structural core does not rise above the point at which the structure would begin to lose its strength at any time during the applicable exposure to the standard fire test. For "A" class divisions, the applicable exposure is 60 minutes, and for "B" class divisions, the applicable exposure is 30 minutes.

12.10 Details of Construction

.1 In accommodation and service spaces, control stations, corridors, and stairways:

(a) air spaces enclosed behind ceilings, paneling, or linings shall be suitably divided by close-fitting draught stops not more than 14 m apart; and

(b) in the vertical direction, enclosed air spaces, including those behind linings of stairways and trunks, shall be closed at each deck.

.2 The draught stops are to be non-combustible and are to form a continuation above the ceiling of the bulkhead below or the other side of the paneling or lining to the bulkhead, as far as possible.

.3 Where the structure or "A" class divisions are required to be insulated, it is to be ensured that the heat from a fire is not transmitted through the intersections and terminal points of the divisions or penetrations to un-insulated boundaries. Where the insulation installed does not achieve this, arrangements are to be made to prevent this heat transmission by insulating the horizontal and vertical boundaries or penetration for 450 mm.

.4 Without impairing the efficiency of the fire protection, the construction of ceilings and bulkheads should allow a fire patrol to detect any smoke originating in concealed and inaccessible places, except where there is no risk of fire originating in such places.

.5 When gaseous fuel is used for domestic purposes, the arrangements for the storage, distribution, and utilization of the fuel shall be such that, having regard to the hazards of fire and explosion which the use of such fuel may entail, the safety of the commercial yacht and the persons on board are preserved.

12.11 Ventilation Systems

.1 Ventilation systems shall comply with SOLAS regulation II-2/9.7.

.2 A mark identifying where a fire damper can be manually closed shall be provided.

.3 Power ventilation of accommodation spaces, service spaces, control stations, and machinery spaces shall be capable of being stopped from an easily accessible position outside the space being served. This position should not be readily cut off in the event of a fire in the spaces served. The means provided for stopping the power ventilation of a machinery space shall be entirely separate from the means provided for stopping ventilation of other spaces.

.4 Where public spaces span three (3) or more open decks and contain combustibles such as furniture and other enclosed spaces, the spaces are to be equipped with a smoke extraction system. The smoke extraction system is to be activated by the smoke detection system required by §12.17 below and is to be capable of manual control. The fans are to be capable of exhausting the entire volume within the space in not more than 10 minutes.

.5 Ventilations systems serving Category A machinery spaces are to be independent of systems serving other spaces.

.6 All enclosed spaces containing free standing fuel tanks are to ventilate independently of systems serving other spaces.

.7 Ventilation is to be provided to prevent the accumulation of dangerous concentration of flammable gas which may be emitted from batteries.

.8 Ventilation openings may be fitted in and under the lower parts of cabin and public space doors fitted in corridor bulkheads. The total net area of any such opening is not to exceed 0.05 m^2.

.9 For spaces containing vehicles or craft with fuel in their tanks or lockers storing such fuels, see §10.1 above. For additional requirements for the ventilation of domestic gaseous fuel, see §12.10.5 and §12.22 in this Chapter.

.10 The ducts of exhaust ventilation for clothing driers shall be provided with access at suitable locations for cleaning and inspection.

.11 All fire dampers shall comply with IMO Resolution A.754(18) Appendix A.II, as referenced in 2010 FTP Code, Annex 1, Part 3.

12.12 Protection of Stairways and Elevators (Lifts) in Accommodation and Service Spaces

.1 Stairways shall be constructed of steel, or equivalent material, and shall be within enclosures formed of "A" class divisions, with positive means of closure at all openings except that:

(a) a stairway which penetrates only a single deck may be protected at one (1) level only by at least "B" class divisions and self-closing door(s); and

(b) stairways may be fitted in the open in a public space, provided they lie wholly within the public space.

.2 Stairway enclosures shall have direct communication with corridors and shall have a sufficient area to prevent congestion, considering the number of persons which may use them in an emergency.

In so far as is reasonable and practicable, stairway enclosures should not give direct access to cabins, service lockers, or other enclosed spaces containing combustibles in which a fire is likely to originate.

.3 Elevator (lift) trunks shall be so fitted to prevent the passage of smoke and flame from one (1) 'tween-deck to another and shall be provided with means of closing so as to permit the control of draft and smoke.

12.13 Means of Escape

12.13.1 Accommodation and Service Spaces

Stairways and ladders shall be arranged to provide ready means of escape to the life raft and/or lifeboat embarkation deck from all accommodation and service spaces other than machinery spaces. In particular, the following provisions shall be complied with:

(a) Below the bulkhead deck two (2) means of escape, at least one (1) of which shall be independent of watertight doors, shall be provided from each watertight compartment or similarly restricted group of spaces. The Administrator may allow one (1) of the means of escape to be dispensed with upon consideration of the nature and location of the spaces and the number of persons who might normally be accommodated or employed there.

(b) Above the bulkhead deck there shall be at least two (2) means of escape from each main vertical zone or similarly restricted group of spaces.

(c) Where it is reasonable and practicable within each main vertical zone there shall be at least one (1) readily accessible enclosed stairway providing continuous fire shelter at all levels up to the appropriate life raft and/or lifeboat embarkation deck or the highest level served by the stairway, whichever level is the highest. The width, number, and continuity of the stairways shall be satisfactory for the number of persons which may use them.

(d) Protection of access from the stairway enclosures to the lifeboat and life raft embarkation areas shall be provided either directly or through protected internal routes which have fire integrity and insulation values for stairway enclosures as determined by Tables 11 and 12 in §12.2 above.

(e) Stairways serving only a space and a balcony in that space shall not be considered as forming one (1) of the required means of escape.

(f) If a radio room or wheelhouse has no direct access to the open deck, two (2) means of escape shall be provided, one (1) of which may be a window of sufficient size.

(g) Where a second means of escape is via a sealed window, then breakable glass (not polycarbonate or laminated glass) which can be readily broken with a conveniently located crash hammer may be accepted. Such windows shall be suitably placed as to permit escape through them.

12.13.2 Machinery Spaces

Two (2) means of escape shall be provided from each machinery space. The following provisions shall be complied with:

(a) Below the bulkhead deck either:

(i) two (2) sets of steel ladders should be installed, as widely separated from each other as possible, leading to doors in the upper part of the space similarly separated and from which access is provided to the appropriate life raft and/or lifeboat embarkation deck. One (1) of these ladders shall provide continuous fire shelter from the lower part of the space to a safe position outside the space; or

(ii) one (1) steel ladder should be installed leading to a door in the upper part of the space from which access is provided to the embarkation deck. Additionally, in the lower part of the space and in a position well separated from the ladder referred to, one (1) steel door capable of being operated from each side should be installed. This door should provide access to a safe escape route from the lower part of the space to the embarkation deck.

(b) Above the bulkhead deck where two (2) means of escape are not reasonable and practical, one (1) of the means of escape may be dispensed with, keeping in mind the width and arrangement and use of the upper part of the space.

(c) Two (2) means of escape shall be provided from a machinery control room located within a machinery space, at least one (1) of which shall provide continuous fire shelter to a safe position outside the machinery space.

(d) Ladders forming the means of escape shall be made of steel or equivalent material.

(e) In no case shall elevators (lifts) be considered as forming one of the required means of escape.

(f) Furniture in the corridors and escape routes shall be of a type and quantity not likely to obstruct access. In addition, furniture further along the escape routes shall be secured so as to prevent movement in the case of the commercial yacht rolling or listing.

12.14 Materials

.1 Except in spaces protected by an automatic fire suppression system and fully addressable fire detection system in accordance with §12.16 below, all linings, grounds and ceilings shall be of non-combustible materials. Core insulation of refrigeration and cold rooms need not to be of non-combustible material.

.2 Vapor barriers and adhesives used in conjunction with insulation, as well as insulation of pipe fittings for cold service systems need not be non-combustible, but shall be kept to the minimum quantity practicable and their exposed surfaces shall be low flame spread.

.3 The following surfaces shall be low flame spread:

(a) exposed surfaces in corridors and stairway enclosures, bulkheads, wall and ceiling linings in all service spaces, and control stations; and

(b) concealed or inaccessible spaces in accommodation, service spaces, and control stations.

(c) As an alternative to (a) and (b) above, these spaces may contain surfaces that are not low flame spread, provided that:

(i) adequate barriers of low flame spread surfaces are arranged to restrict the spread of flame areas at distances not greater than 5 m; or

(ii) these spaces are protected by an automatic fire suppression system and fully addressable fire detection system in accordance with §12.16 below.

.4 Pipes penetrating "A" or "B" class divisions are to be of approved materials having regard to the temperature such divisions are required to withstand.

.5 Pipes conveying oil or combustible liquids through accommodation and service spaces are to be of approved materials having regard to the fire risk.

.6 The total volume of combustible facings, moldings, decorations, and veneers in any accommodation and service space not protected by a system complying with §12.16 or §12.17 below, shall not exceed a volume equivalent to 2.5 mm veneer on the combined area of the walls and ceilings.

.7 Materials readily rendered ineffective by heat shall not be used for overboard scuppers, sanitary discharges, and other outlets which are close to the waterline and where the failure of the material in the vent of fire would give rise to the danger of flooding.

.8 Primary deck coverings, if applied within accommodation, service spaces, and control stations, shall not be of material that is readily ignitable, nor give off toxic or explosive hazards at elevated temperatures. In this regard, reference shall also be made to the 2010 FTP Code, Annex 1, Parts 2 and 5, and applied as required.

.9 Upholstery composites (fabric in association with any backing or padding material) used throughout the commercial yacht shall satisfy fire test procedures of the 2010 FTP Code, Annex 1, Part 8, or an equivalent standard; and

(a) organic foams used in upholstered furniture and mattresses shall be of the combustion modified type satisfying the fire test procedures of the 2010 FTP Code, Annex 1, Part 9, or an equivalent standard; and

(b) suspended textile materials such as curtains and drapes shall satisfy the fire test procedures of the 2010 FTP Code, Annex 1, Part 7, or be of equivalent standard.

If a fully addressable fire detection system is fitted, the requirement in this §12.14.10 may be dispensed with.

.10 In spaces where penetration of oil products is possible, the surface of insulation is to be impervious to oil or oil vapors. Insulation boundaries are to be arranged to avoid immersion in oil spillages so far as is reasonable and practicable.

12.15 Deep Fat Cooking Equipment

The provisions of SOLAS regulation II-2/10.6.4 shall be complied with for any deep fat cooking equipment fitted on the commercial yacht.

12.16 Suppression of Fire

.1 Each separate zone in all accommodation and service spaces, except spaces which afford no substantial fire risk (such as, for example, void spaces and sanitary spaces) shall be provided with an automatic fire suppression, fire detection, and fire alarm system of an Approved Type and complying with the requirements of SOLAS regulation II-2/7 and the FSS Code, Chapter 8, or an equivalent standard acceptable to the Administrator. The systems shall be designed to enable simultaneous operation of all sprinklers fitted in the most hydraulically demanding area. The minimum area for simultaneous operation may be taken as the largest area bounded by "A-0" class bulkheads or the breadth of the commercial yacht squared, whichever is greater, subject to a maximum of 280 m^2.

.2 Alternatives to §12.16.1 above that may be accepted as compliant by the Administrator include:

(a) In machinery spaces, water-mist fire extinguishing systems complying with the guidelines provided in MSC/Circ.668 and MSC/Circ.728 may be approved for use by the Administrator.

(b) A manual dry pipe sprinkler system of an Approved Type either complying with the requirements of IMO Resolution MSC.44(65) or to an equivalent standard (to the satisfaction of the Administrator), which provides increased security against damage caused by accidental discharge from sprinklers. The system shall be installed and arranged to protect such spaces.

12.17 Fire Detection and Alarms

.1 A fixed fire detection and fire alarm system of an Approved Type complying with the requirements of SOLAS regulation II-2/7 and the FSS Code Chapter 9, shall be fitted in all enclosed spaces except those containing no significant fire risk (toilets, bathrooms, void spaces, etc.).

.2 Manually operated call points complying with the requirements of SOLAS regulation II-2/13 shall be installed.

.3 At all times, commercial yachts when at sea and in port (except when out of service) shall be manned and/or equipped to ensure that any initial fire alarm is immediately received by a responsible member of the crew.

12.18 Public Address Systems

For commercial yachts having a length of 85 m or more, a public address system complying with the requirements of SOLAS regulation III/6.5 shall be available throughout the accommodation, service spaces, control stations, and open decks.

12.19 Lubricating Oil Arrangements

Arrangements for the storage, distribution, and utilization of oil used in pressure lubrication systems shall be such as to minimize the risk of fire or explosion.

12.20 Arrangements for Other Flammable Oils

Arrangements for the 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 minimize the risk of fire or explosion.

12.21 Prohibition of Carriage of Flammable Oils in Forepeak Tanks

Fuel oil, lubricating oil, and other flammable oils shall not be carried in forepeak tanks.

12.22 Arrangements for Gaseous Fuel for Domestic Purposes

Where gaseous fuel is used for domestic purposes the arrangements for the storage, distribution, and utilization of the fuel are to be such that, having regard to the hazards of fire and explosions which the use of such fuel may entail, the safety of the commercial yacht and the persons on board is preserved. The installation is to be in accordance with recognized national or international standards and is to meet the requirements contained in §10.1 above.

12.23 Space Heaters

Where space heaters are used, they shall be fixed in position and so constructed as to reduce their associated fire risks to a minimum. The design and location of these units is to be such that clothing, curtains, or other similar materials cannot be scorched or set on fire by heat from the unit.

12.24 Paints, Varnishes, and Other Finishes

Paints, varnishes, and other finishes which pose an undue fire hazard shall not be used in the engine room, galley, or in other areas of high fire risk. Elsewhere, such finishes shall be kept to a minimum.

12.25 Open Flame Gas Appliances

An open flame gas appliance provided for cooking, heating, or any other purpose shall comply with the requirements of ISO 10239:2008 or an equivalent standard.

12.26 Arrangement of Fuel Oil Tanks and Piping

.1 All commercial yachts shall comply with SOLAS regulation II-2/4(2).

.2 Oil fuel tanks situated within, or adjacent to, the boundaries of Category A machinery spaces are not to contain oil fuel having a flashpoint of less than 60°C.

12.27 Emergency Escape Breathing Devices (EEBDs)

.1 All commercial yachts shall carry at least two (2) EEBDs within the accommodation spaces and at least two (2) shall be kept in each main vertical zone.

.2 In the machinery spaces the EEBDs shall be situated for use in easily visible spaces which can be reached easily at any time in the event of a fire. The location of EEBDs

shall take into account the layout of the machinery space and the number of persons normally working in the machinery space.

.3 The number and location of these devices shall be indicated in the Fire Control Plan.

.4 EEBDs shall comply with the FSS Code.

13.0 MACHINERY FOR COMMERCIAL YACHTS OF LESS THAN 500 GT

13.1 General Requirements

.1 The machinery and its installation shall be approved and installed in accordance with the Rules of Class.

.2 Where a commercial yacht operates with periodically unattended machinery spaces, the machinery shall be approved and installed in accordance with the Rules of Class and shall also meet the requirements of SOLAS regulation II-1/E to the extent that is reasonable and practicable.

.3 Plastic piping may be accepted where the piping and the arrangements for its use meet the requirements of the 2010 FTP Code.

.4 The requirements for main propulsion are based upon the installation of diesel powered units burning distillate fuels which are not required to be heated. When other types of main propulsion systems are proposed, the arrangements and installation may be considered by the Administrator.

.5 Where gas turbines are to be fitted, reference should be made to Chapter 9.3 of the International Code of Safety for High-Speed Craft (HSC Code), which shall be used as guidance and the installation shall be to the satisfaction of the Administrator or its representative.

13.2 Installation

.1 Notwithstanding the requirements referred to in §13.1 above, the machinery, fuel tanks, and associated piping systems and fittings shall be of a design and construction adequate for the service for which they are intended.

.2 The machinery, fuel tanks, and associated piping systems and fittings shall be installed and protected so as to reduce to a minimum any danger to persons during normal movement about the commercial yacht; due regard shall be made to moving parts, hot surfaces, and other hazards.

.3 Means shall be provided to isolate any source of fuel that may feed a fire in an engine space. Fuel shut-off valves shall be capable of being closed from a position outside the engine space. The valve(s) shall be fitted as close as possible to the fuel tank(s).

.4 When a glass fuel level gauge is fitted, it shall be of the “flat glass” type with self-closing valves between the gauge and the tank.

.5 Notwithstanding the requirements of §13.1 above, in a fuel supply system to an engine unit, when a flexible section of piping is installed connections shall be of a screw type or an equivalent Approved Type. Flexible pipes shall be fire resistant or metal reinforced or otherwise protected from fire.

.6 All fuel lines are to be properly supported by suitable brackets to the satisfaction of the Administrator or its representative. Materials and fittings shall be of a suitable recognized national or international standard that provides for a fire rating of at least 800°C for 30 minutes.

.7 Steel filter bowls are required; glass or plastic filter bowls are not acceptable.

.8 External high-pressure fuel delivery pipes between the high pressure fuel pumps and fuel nozzles are to be protected with approved jacketed tubing capable of containing fuel spills in case of a fuel line failure. Means for the collection of fuel, including alarm arrangements, shall be provided in the event of a fuel line failure.

.9 Fuel oil lines shall not be located immediately above or near units of high temperature including exhaust manifolds, silencers, or other equipment required to be insulated. Fuel oil lines shall be arranged far apart from hot surfaces, electrical installations, or other sources of ignition.

.10 Fuel oil line joints shall be protected (anti-splash tape or equivalent) to avoid spraying or leaking onto a source of ignition.

.11 Multi-engine installations which are supplied from one (1) common fuel source shall be provided with means of isolating the fuel supply to the individual engines. The means of isolation shall not affect the operation of the other engine(s) and shall be operable from a position which would not be rendered inaccessible by a fire or spill on any of the engines**.**

.12 Machinery exhaust systems shall not normally pass through any accommodation sections unless they are fitted in a gas tight trunk or each space is fitted with a carbon monoxide detector where the alarm is to be provided locally and at a continuously manned station.

13.3 Steering Gear

13.3.1 Steering Systems

.1 The steering gear shall be capable of turning 35° from one side to 35° on the other side at the maximum ahead service speed of the commercial yacht and, under the same conditions, 35° from one side to 30° on the other side in not more than 28 seconds.

.2 Where the main steering gear comprises two (2) or more identical power units, the conditions of §13.3.1.1 shall apply for each single unit.

.3 When appropriate to the safe steering of the commercial yacht, the steering gear shall be power operated.

13.3.2 Emergency Steering

In the event of failure to the main steering system, means for emergency steering shall be provided.

13.4 Bilge Pumping Arrangements

13.4.1 Pumps

.1 All commercial yachts shall be equipped with at least two (2) fixed and independently powered pumps, with suction pipes so arranged that any compartment can be effectively drained when the commercial yacht is heeled to an angle of up to 10° under all practical circumstances.

.2 The location of pumps and their individual power supplies and controls, including those for bilge valves, shall be such that in the event of any one (1) compartment being flooded another pump is available to control progressive flooding to other compartments.

.3 Each bilge pump suction line, other than the emergency suction line, shall be fitted with an efficient strum box or strainer.

.4 Portable semi-submersible bilge pumps, preferably diesel driven, may be considered by the Administrator or its representative as an alternative to one (1) of the two (2) required pumps.

13.4.2 Periodically Unmanned Machinery Spaces

In the case of a commercial yacht where the propulsion machinery space may be unmanned at any time, a bilge level alarm shall be fitted. The alarm shall be able to provide an audible and visual warning in the crew mess and in the wheelhouse. The location of the audible and visual alarm may be approved by the Administrator elsewhere on the commercial yacht if it is considered that such a location may be more practical.

13.4.3 Pumping and Piping Arrangements

.1 Pumping and piping arrangements for bilges into which fuel or other oils of similar or higher fire risk could collect, under either normal or fault conditions, shall be kept clear of accommodation spaces and separate from accommodation bilge systems. Bilge level alarms which meet the requirements of §13.4.2 above shall be fitted to all such bilges in spaces that are unmanned at any time.

.2 Approved plastic bilge piping may be accepted outside the engine room. The materials used for bilge piping in the engine room shall meet the fire resistant requirements of a Classification Society.

.3 All distribution boxes and manually operated valves in connection with the bilge pumping arrangements shall be in positions which are accessible under ordinary circumstances.

.4 It shall be ensured that satisfactory emergency bilge pumping (independent of the main bilge pumps) is provided.

.5 The bilge system shall be designed to ensure that there is no direct uncontrolled discharge of bilge water into the marine environment.

.6 Commercial yachts of less than 400 GT shall be equipped, as far as practicable, to retain oil or oily mixtures on board and/or discharge them in accordance with the requirements of MARPOL Annex I, regulation 15.6.

.7 Commercial yachts of 400 GT and above shall fully comply with the regulations of MARPOL Annex I, except as specified otherwise in the Annex. For further guidance, please refer to *MARPOL Standard Discharge Connectors on Yachts* (TC 5 Rev. 1).

.8 Special consideration shall be given to *Oil Filtering Equipment and Control of Operational Discharge of Oil* (MN 2-013-3).

13.5 Electrical Installations

13.5.1 Installation

.1 Overload and short circuit protection of all circuits shall be provided, except engine starting circuits supplied from batteries.

.2 Lighting circuits, including emergency circuits, shall be distributed through all spaces and in such a manner that a total blackout cannot occur due to the tripping of a single protective device.

.3 Electrical devices working in potentially hazardous areas, into which petroleum vapor or other hydrocarbon gas may leak, shall be provided with protection against the risk of igniting the gas. Reference should be made to §10.1 above.

.4 Exposed metal, such as casings, of electrical machines and equipment, which are not intended under normal conditions to conduct electricity but which are liable under fault conditions to do so, shall be earthed unless the machines or equipment are:

(a) supplied at a voltage not exceeding 50 volts (V) direct current or 50 V root mean square between conductors (auto-transformers shall not be used for the purpose of achieving this voltage); or

(b) supplied at a voltage not exceeding 250 V by safety isolating transformers supplying only one (1) consuming device; or

(c) constructed in accordance with the principle of double insulation.

.5 When a distribution system with no connection to earth is used for power, heating, or lighting, whether it is main or emergency, a device capable of indicating an abnormally low insulation value shall be provided.

.6 Where a risk of lightning strike is identified, reference shall be made to ISO 10134:2003, “Small craft - electrical devices - lightning protection systems,” and the proper protection provided.

.7 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. The Administrator may permit the use of special types of cables, such as radio frequency cables, which do not comply with this requirement. Further:

(a) electric cables and wiring serving essential or emergency power, lighting, internal communications, or signals shall so far as is practicable be routed clear of galleys, laundries, machinery spaces of Category A and their casings, and other high fire risk areas; and

(b) electric 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.

.8 Electric cables and wiring shall be installed and supported in such a manner as to avoid chafing and other damage.

13.5.2 Emergency Sources of Power

.1 An emergency source of electrical power shall be provided on board the commercial yacht.

.2 The electrical power, associated transforming equipment (if any), means to transfer power and the emergency switchboard shall be located above the uppermost continuous deck and shall be readily accessible from the open deck.

(a) The Administrator may consider alternative arrangements for the location of the emergency source of electrical power as long as the location is protected from fire and flooding; however, it shall never be forward of the collision bulkhead. The electrical emergency switchboards shall in all cases be located above the uppermost continuous deck.

(b) When an emergency generator is provided, the alternative location must be readily accessible from an open deck and separated (in accordance with Table 8 provided in §11.1.5 above) from the main engines and main switchboards to ensure continued operation. The emergency generator shall be self-contained.

.3 Emergency electrical power shall be sufficient to provide power for three (3) hours duration at maximum output which includes powering all of the following:

(a) power supply to navigation lights;

(b) VHF radio;

(c) ship earth radio station;

(d) medium frequency (MF) or MF/high frequency (HF) radio (if installed);

(e) internal communication equipment required in an emergency;

(f) fire detection alarm system and fire door holding and release system;

(g) intermittent operation signaling lamp, ships whistle, and manually operated call points;

(h) all internal signals required in an emergency;

(i) one (1) fire pump; and

(j) one (1) bilge pump.

.4 Emergency electrical power shall be sufficient for a period of 30 minutes if any of the following are installed:

(a) watertight doors; or

(b) emergency arrangements to bring the elevator (lift) to deck level for escape.

13.5.3 Emergency Lighting

An emergency source of lighting shall be provided which shall be independent of the general lighting system and sufficient to enable persons to make their way from the accommodations or working spaces up to the open deck and evacuate the commercial yacht, if necessary. This lighting, supplemented by flashlights, shall also be sufficient to permit emergency repairs.

13.5.4 Batteries

.1 Batteries shall be of a type suitable for marine use and not susceptible to leakage.

.2 Batteries shall be suitably stored, secured, and sea fastened.

.3 In areas where batteries are stored, adequate ventilation shall be provided to prevent an accumulation of gas that may be emitted.

.4 In areas where unsealed batteries are stored, personal protective equipment shall consist, at a minimum, of protective gloves, fully closed goggles or face mask, eye wash, and an apron.

.5 Particular caution, with respect to fire hazards, should be taken when using portable electronic devices powered by lithium-ion batteries.

14.0 MACHINERY FOR COMMERCIAL YACHTS 500 GT AND ABOVE

14.1 General Requirements

.1 Machinery shall be approved and installed in accordance with the Rules of Class as well as SOLAS regulation II-1/C and any other applicable international conventions.

.2 For commercial yachts that operate with periodically unattended machinery spaces, the machinery shall be approved and installed in accordance with the Rules of Class and shall also meet the requirements of SOLAS regulation II-1/E to the extent that is reasonable and practicable.

.3 Where gas turbines are to be fitted, Chapter 9.3 of the HSC Code shall be used as guidance and the installation shall be to the satisfaction of the Administrator or its representative.

.4 Machinery exhaust systems shall not normally pass through any accommodation spaces unless they are fitted in a gas tight trunk or each space is fitted with a carbon monoxide detector where the alarm is to be provided locally and at a continuously manned station.

14.2 Main Steering Gear

The rudder, steering gear, and its installation shall meet the requirements of a Classification Society and the standards of SOLAS regulation II-1/29.

14.3 Bilge Pumping Arrangements

The bilge pumping arrangements and installation shall meet the requirements of a Classification Society and SOLAS regulation II-1/35-1. The bilge system shall be designed to ensure that there is no direct uncontrolled discharge of bilge water into the marine environment. Special consideration shall be given to MN 2-013-3. For further guidance, please refer to TC 5 Rev. 1.

14.4 Electrical Installation

.1 The electrical installation and its appliances shall meet the requirements of a Classification Society and SOLAS regulation II-1/Part D.

.2 The location of the emergency generator, its associated equipment and switchboards shall meet the requirements of SOLAS regulation II-1/43 and SOLAS regulation II-1/44 as applicable.

.3 The Administrator may consider alternative arrangements for the location of the emergency source of power as long as the location is protected from fire and flooding; however, it shall never be forward of the collision bulkhead. The electrical emergency switchboards shall in all cases be located above the uppermost continuous deck.

15.0 FIRE-FIGHTING EQUIPMENT - COMMERCIAL YACHTS OF LESS THAN 500 GT

15.1 General Requirements

.1 Fire appliances shall be of an Approved Type and shall be to the satisfaction of the Administrator or its authorized representative.

.2 Any fire appliances provided in addition to those required by this section shall be of an Approved Type.

.3 The location, installation, testing, and maintenance of all equipment shall be to the satisfaction of the Administrator.

.4 The location of concealed fire appliances shall be clearly marked; however, the marking need not comply with IMO signs, but must be suitable to identify the location of the fire-fighting equipment, taking into account the décor.

15.2 Specific Requirements

15.2.1 Fire Pumps

.1 At least two (2) fire pumps shall be provided on board a commercial yacht; one (1) of which must be an independent power driven pump.

.2 The power-driven fire pump shall have a capacity of:

$$2.5 \times (1+0.066 \times (L(B+D))^{0.5})^2 \ m^3/hour$$

Where:

L is the Load Line Length;

B is the greatest molded breadth; and

D is the molded depth measured to the bulkhead deck at amidships.

.3 The pump shall, when discharging at full capacity through any two (2) fire hydrants, be capable of maintaining a pressure of 0.2 newton per square mm (N/mm^2) at each hydrant so long as the fire hose can be effectively controlled at this pressure.

.4 The second fire pump, if not meeting the requirements of §15.2.1.2 above, shall have the capacity of at least 80% of that required in §15.2.1.2 above, and may be:

(a) a portable fire pump with a permanent sea connection external to the machinery space and having the ability to feed the fire main; or

(b) a bilge pump that can be, by means of valves, connected to the fire main.

.5 Each centrifugal pump shall be provided with a non-return check valve in the connection to the fire main.

15.2.2 Fire Main and Hydrants

.1 A fire main with connected fire hydrants shall be fitted to the commercial yacht.

.2 The fire main and hydrants shall be so arranged that, if necessary, one (1) length of hose can be used to provide one (1) stream of water to any location on board that is normally accessible to the passengers or crew, including any store room or storage compartment.

The fire main and hydrants shall be arranged to avoid being readily damaged.

.3 The fire main and all connections to the hydrants shall have an inner diameter and schedule that is appropriately sized for the maximum discharge rating of the pump(s) connected as specified by the manufacturer.

.4 The fire main and hydrants shall be made of materials that:

(a) are not readily rendered ineffective by heat unless adequately protected; and

(b) do not readily corrode.

.5 The fire main and hydrants shall be so arranged to avoid the possibility of freezing.

.6 Where the second fire pump is fitted in a different location than the primary pump (i.e., outside of the machinery space) isolating valves that separate the section of the fire main within the machinery space containing the primary fire pump(s) from the rest of the fire main shall be fitted so that the secondary pump may feed the fire main separately from any piping positioned within the machinery space.

(a) The isolating valves shall be of a manually operated type fitted in an easily accessible location outside of the machinery space.

(b) If any part of the isolated section of the fire main must pass through the machinery space it shall be insulated to "A-60."

.7 An isolating valve shall be fitted to each hydrant so that any hose may be removed while the fire pumps are in operation without losing pressure.

.8 At a minimum, at least two (2) separate hydrants shall be provided in locations where if one (1) is rendered inaccessible the other is likely to remain free of debris, water, fire, or other hindrance.

.9 The fire main shall have no connection(s) or permanent function(s) other than for fire-fighting or anchor wash down.

.10 Where a classed commercial yacht has a class notation indicating a periodically unattended machinery space or where only one (1) person is required on watch, there shall be the ability to remotely start the fire pumps from the navigating bridge and fire control station.

.11 If the fire control station is positioned at a location less than two (2) compartments removed or 10 m, whichever is less, from the navigating bridge the remote start need only be provided at one (1) of the locations.

15.2.3 Fire Hoses and Nozzles

.1 Fire hoses shall be of an Approved Type and be provided with similarly approved nozzles and couplings.

.2 Fire hoses, nozzles, and other associated tools and fittings shall be kept in readily accessible and marked locations close to the hydrants or connections on which they will be used.

.3 In interior spaces, hydrants, nozzles, and any other associated connections necessary for fire-fighting shall be connected and readily accessible at all times.

.4 Fire hoses shall not exceed 18 m in length and the diameter of a lined hose for use with a power-driven pump shall not be less than 45 mm.

.5 Jet or spray nozzles shall have a diameter of 19 mm, 16 mm, or 12 mm depending on fire-fighting purposes and shall have the ability to be opened and closed.

For accommodation and service spaces, the diameter of nozzles need not exceed 12 mm.

.6 Smaller diameter hoses and jet/spray nozzles will be considered as meeting the requirements of this Code as long as they will not negatively impact the fire-fighting ability of the system, as designed.

.7 The number of fire hoses and nozzles provided shall correspond to the specific and unique requirements of the commercial yacht; but in no case shall there be less than three (3) fire hoses and nozzles on each commercial yacht.

15.2.4 Portable Fire Extinguishers for Use in the Accommodation and Service Spaces

.1 The number, location, capacity, and fire extinguishing medium type shall be selected in accordance with the specific and unique requirements of the commercial yacht, but in no case shall there be less than three (3) fire extinguishing mediums on each commercial yacht.

The fire extinguishers provided shall have, as far as is reasonable and practicable, a uniform method of operation.

.2 Carbon dioxide portable fire extinguishers shall not be located or provided for use in accommodation spaces.

.3 In locations containing electrical or electronic equipment and/or appliances necessary for the safe operation of the commercial yacht, fire extinguishers of a medium that is neither electrically conductive nor harmful to the equipment and/or appliances shall be installed.

.4 Fire extinguishers shall be located external to but adjacent to the entrance of the space for which they are intended to be used. Additionally, they shall be in a marked and easily visible location which is easily accessible in an emergency and where damage cannot readily occur.

.5 Spare charges shall be provided on board for 100% of the first four (4) portable fire extinguishers and at least 50% of each type and capacity of the remaining portable fire extinguishers capable of being recharged on board.

.6 When an extinguisher is carried on board that is not able to be recharged when the commercial yacht is at sea, an additional portable fire extinguisher of the same type (or its equivalent) shall be provided on board.

15.2.5 Fire Extinguishing in Machinery Spaces

.1 Category A machinery spaces containing internal combustion type machinery shall be provided with:

(a) a fixed fire extinguishing system approved in accordance with the FSS Code; and

(b) one (1) portable fire extinguisher for oil fires for each horsepower (75 kW); or

(c) two (2) portable fire extinguishers for oil fires together with:

(i) one (1) foam extinguisher of 45 L capacity; or

(ii) one (1) carbon dioxide portable fire extinguisher of 16 kilograms (kg) capacity.

.2 In a machinery space containing an oil fuel settling tank, oil fuel unit, oil fired boiler or incinerator, a fixed fire extinguishing system complying with the standards as found in the FSS Code shall be provided.

.3 In addition to that which is specified in §15.2.5.1 above, the number, location, capacity, and fire extinguishing medium type shall be selected in accordance with the specific and unique requirements of the commercial yacht, but in no case less than two (2) for any individual machinery space containing any part of an oil fuel installation.

.4 Additionally, one (1) portable fire extinguisher shall be readily accessible for use in the steering flat.

15.2.6 Additional Fire Appliances

The following additional appliances are required:

(a) two (2) fireman's outfits including an approved breathing apparatus for each outfit; and

(b) one (1) fire blanket in the galley.

16.0 FIRE-FIGHTING EQUIPMENT - COMMERCIAL YACHTS 500 GT AND ABOVE

.1 Commercial yachts of 500 GT and above shall comply with SOLAS regulation II-2/10. If, depending on the design of the commercial yacht and its equipment, the requirements of SOLAS regulation II-2/10 cannot be practically met, compliance with other standards, such as those found in §15 above, may be considered by the Administrator.

.2 Concealed fire-fighting equipment shall be clearly marked; however, the marking need not comply with IMO signs, but must be suitable to identify the location of the fire-fighting equipment, taking into account the décor.

.3 Commercial yachts of 500 GT and above shall be provided with at least one (1) international shore connection complying with the FSS Code.

17.0 LIFE-SAVING APPLIANCES

17.1 General Requirements

17.1.1 Life-Saving Appliances

.1 All commercial yachts shall be provided with life-saving appliances in accordance with the Life-Saving Appliances Table 13 in this section.

.2 All commercial yachts shall be provided with an approved life-saving appliances general arrangement plan (normally combined with the fire control general arrangement plan). Symbols used on the plan(s) shall comply with MN 2-011-10.

.3 All equipment fitted shall be of an Approved Type that is in accordance with *Lifesaving Appliances and Systems* (MN 2-011-37). Unless expressly provided otherwise, all life-saving appliances shall comply with the LSA Code and IMO Resolution MSC.81(70).

.4 Every inflatable rescue boat, rigid inflatable rescue boat, life raft, and hydrostatic release unit shall be serviced at intervals not exceeding 12 months by an approved service provider. Approved disposable hydrostatic release units which have been approved for a service life of more than one (1) year need not be serviced annually but shall be replaced at the end of their service life in accordance with the manufacturer's recommendations.

.5 All life-saving equipment that may be provided, either mandatorily or voluntarily, must meet the requirements of this §17.1.

When safety equipment is provided for use in supplementary activities, such as water sports, or used for training purposes, arrangements for its stowage and its marking shall ensure that it will not be mistakenly used as approved life-saving equipment in an emergency situation.

.6 All life-saving equipment carried on board shall be fitted with retro-reflective material in accordance with the recommendations found in IMO Resolution A.658(16). Retro-reflective material already fitted on existing life-saving appliances in accordance with IMO Resolution A.274(VIII) will continue to be accepted until it has to be replaced as a result of deterioration or damage.

.7 The stowage and installation of all life-saving appliances is to be to the satisfaction of the Administrator or its representative, as applicable.

.8 All life-saving appliances shall be kept in good condition and be ready for immediate use before any voyage is commenced and at all times during the voyage.

.9 In the case of an emergency that necessitates the safe evacuation of the commercial yacht, special consideration shall be given, and provisions made as necessary, to avoid interference from dangerous elements, above or below the waterline, such as propellers, impellers, stabilizers, sea chests, bow thrusters, etc.

.10 Means shall be provided to prevent overboard discharge of water into survival craft during abandonment.

.11 Maintenance of life-saving equipment shall be carried out in accordance with the instructions for onboard maintenance. See §27.4 of this Chapter.

Table 13: LIFE-SAVING APPLIANCES (see sections of this Chapter as noted below)					
Size of Commercial Yacht	**<500 GT**			**≥500 GT**	**≥85 M**
Category	**Category 2**	**Category 1**	**Category 0**	**All Categories**	
Life Boats (see §17.2.1)	No				Yes
Life Rafts (see §17.2.2)	Yes				
Rescue Boat (see §17.2.4)	No	Yes			
Recovery of Persons from the Sea (see §17.2.3)	Yes				
Lifejackets (see §17.2.6)	Yes				
Immersion Suits (see §17.2.7)	Yes				
Life Buoys (Total) (see §17.2.5)	Four (4)		Six (6)	Eight (8)	
Life Buoys with Light and Smoke; or SOLAS-Approved Strobe (see §17.2.5.4)	Two (2)				
Life Buoys with Buoyant Line (see §17.2.5.3)	Two (2)				
Line Throwing Appliances with Spare Charge(s) (see	One (1)				

Table 13: LIFE-SAVING APPLIANCES (see sections of this Chapter as noted below)					
Size of Commercial Yacht	**<500 GT**			**≥500 GT**	**≥85 M**
Category	**Category 2**	**Category 1**	**Category 0**	**All Categories**	
§17.2.9)					
Rocket Parachute Flares (see §17.2.8)	Four (4)		Six (6)	Twelve (12)	
Red Hand Flares (see §17.2.8)	Six (6)		Twelve (12)		
Smoke Signals (see §17.2.8)	Two (2)			Four (4)	
Portable VHF	Two (2)		Three (3)		
EPIRBs (see §17.2.10)	One (1)				
SARTs (see §17.2.11)	One (1)		Two (2)		
General Alarm (see §17.2.12)	Yes				
Posters / Signs / Placards Showing Survival Craft and Equipment Operating Instructions	Yes				
Training Manual (see §27.3)	Yes				
Mini-ISM (see Annex 1)	Yes			No	
Safety Management System (ISM Code)	Voluntary Compliance			Yes	
Life-Saving Signals and Rescue Poster (see §17.2.14)	Yes				

17.1.2 Launching Appliances

.1 Launching appliances shall be in accordance with the LSA Code Chapter VI, unless expressly provided otherwise in this Code.

.2 Any inspection, servicing, or repair of cranes, wires, and associated parts of the launching appliances shall be carried out in accordance with *Lifesaving Appliances and Systems* (MN 2-011-37) and services developed by the manufacturer.

.3 At intervals not exceeding 12 months, the inspection of cranes, wires, and associated parts of the launching appliances shall be performed by a manufacturer's representative or a person appropriately trained and approved by the commercial yacht's Classification Society. Records of inspections and routine maintenance carried out by the ship's crew and the applicable certificates for the launching appliances and equipment shall be maintained on board at all times. Repairs and replacement of parts shall be carried out in accordance with the manufacturer's requirements and standards.

17.2 Equipment Carriage Requirements

17.2.1 Lifeboats

.1 Lifeboats are required on commercial yachts of 85 m or more in Load Line Length.

.2 When lifeboats are required to be carried, their acceptance is conditional upon suitable stowage and launching arrangements.

.3 When lifeboats are provided on each side of the commercial yacht, each lifeboat shall be of sufficient capacity to accommodate the total number of persons on board.

.4 Where it is considered impractical to carry lifeboats on a commercial yacht, the Administrator may on application agree to alternative arrangements which may include, but not necessarily be limited to:

(a) the substituting of life rafts if the required subdivision index meets the requirements of a SOLAS 2-compartment subdivision standard; or

(b) the fitting of a sufficient number of davit launched life rafts, so long as the aggregate capacity on each side of the commercial yacht is such that if any one (1) life raft is lost, damaged, or otherwise rendered unusable there remains the capacity for 100% of the persons on board; or

(c) the installation of certain mass evacuation systems.

.5 A lifeboat will also be acceptable as a rescue boat provided it meets the requirements for an approved rescue boat as indicated in §17.2.4 below.

17.2.2 Life Rafts

.1 Life raft embarkation arrangements shall comply with the following:

(a) A means of embarkation of life rafts must be provided where the distance between the embarkation deck and the top of the life raft buoyancy tube exceeds 1 m when the commercial yacht is in its lightest condition.

(b) Where the distance between the embarkation deck and the top of the life raft buoyancy tube exceeds 4.5 m when the commercial yacht is in its lightest condition, davit launched life rafts shall be provided with at least one (1) launching appliance also provided on each side of the commercial yacht.

(c) A life raft will be considered as being readily transferable if it is able to be carried by two (2) persons.

(d) The readily transfer ability of life rafts shall be demonstrated to the satisfaction of the Classification Society or AR.

.2 The life rafts carried are to be stowed in Glass Reinforced Plastic (GRP) containers and must contain the necessary SOLAS emergency pack, the contents of which are dependent upon the commercial yacht's limiting Category:

(a) yachts in Category 2 must have life rafts equipped with a SOLAS B Pack; and

(b) commercial yachts in Category 0 or 1 must have life rafts equipped with a SOLAS A Pack.

.3 The life rafts carried on board the commercial yacht shall each be of equal capacity or as near equal as possible.

.4 Life raft approval includes approval of their stowage, launching, and float-free arrangements.

.5 A commercial yacht shall be provided with life rafts of such number and capacity that, in the event of any one (1) life raft being lost, damaged, or otherwise rendered unusable there remains sufficient capacity for all persons on board.

.6 For a commercial yacht of less than 85 m in Load Line Length, one (1) or more life rafts are to be provided on each side of the commercial yacht of sufficient aggregate capacity to accommodate the total number of persons on board. Life rafts are to be readily transferable for launching on either side of the commercial yacht.

If life rafts are not readily transferable, additional life rafts shall be fitted so that life rafts having a total capacity of 150% of the commercial yacht's complement are provided on each side of the commercial yacht.

.7 In lieu of meeting the requirements of §17.2.2.6 above yachts limited to Category 2 of less than 500 GT may carry a sufficient number of life rafts, so that in the event of any one life raft being lost or rendered unserviceable, sufficient aggregate capacity remains on either side of the yacht for all persons on board. This may be achieved by transferring life rafts from one side to the other.

.8 For a sailing commercial yacht, when it is impractical to stow the life rafts required by §17.2.2.6 above at the commercial yacht's side, alternative arrangements may be accepted to provide life rafts having a capacity of 150% of the commercial yacht's complement stowed on the centerline, subject to their being readily transferable to either side of the commercial yacht.

.9 When lifeboats are provided in accordance with §17.2.1.3 above, sufficient life rafts are to be fitted on each side of the commercial yacht capable of accommodating 50% of the total number of persons on board. Life rafts are to be readily transferable for launching on either side of the commercial yacht.

If life rafts are not readily transferable, additional life rafts having a total capacity of 100% of the commercial yacht's complement shall be provided on each side of the commercial yacht.

17.2.3 Recovery of Persons from the Sea

.1 Means shall be provided for the recovery of a person from the sea to the commercial yacht. If a person is unconscious or unable to assist in the rescue, means shall be provided to recover them. This may be satisfied by an inflatable boat or rescue boat provided with a suitable davit should it not be possible for the commercial yacht itself to be used to recover persons from the sea.

.2 All commercial yachts shall have commercial yacht-specific plans and procedures for the recovery of persons from the water. The plans shall identify the equipment intended to be used for recovery purposes and measures to be taken to minimize the risk to shipboard personnel involved in recovery operations, in accordance with *Plans and Procedures to Recover Persons from the Water* (MN 2-011-47).

.3 The means of recovery shall be demonstrated to the satisfaction of the Administrator or its representative as requested.

.4 If an over side boarding ladder or scrambling net is provided to assist in the recovery of an unconscious person from the water, the ladder or net shall extend from the weather deck to at least 600 mm below the lowest operational waterline.

17.2.4 Rescue Boats

.1 All rescue boats and associated equipment covered in this section shall comply with the LSA Code Chapter V/5.1.

.2 Launching of a rescue boat shall always be designed so as to allow it to be launched from a sheer vertical side of the commercial yacht as far as is practical and in an area free of impedances or hazards in accordance with §17.1.1.9. The rescue boat need only be able to be launched from one (1) side of the commercial yacht.

.3 If the rescue boat is stowed forward, the launching appliances shall be entirely located in a position aft of the vertical extension of the aft most portion of the collision bulkhead.

.4 The requirements of §17.2.3 above shall also be followed.

.5 Commercial yachts of 500 GT and above:

(a) A rescue boat meeting SOLAS requirements shall be provided; however, it may be white in color.

(b) The acceptance of an approved rescue boat is conditional upon the provision of suitable stowage and launching arrangements. The launching arrangements shall be of an Approved Type and/or acceptable to the Administrator. When a power-operated crane is used as a launching device, it shall be capable of operation by hand in the event of a power failure. A secondary power source, e.g., emergency generator power, battery, or hydraulic pump, is acceptable in lieu of emergency hand operation of the rescue boat crane.

(c) An inflatable or rigid inflatable rescue boat may be accepted; however, it must be in a fully inflated condition at all times.

.6 Commercial yachts of less than 500 GT:

Commercial yachts of Category 0 or 1 shall comply with the requirements of §17.2.4.5 above.

For commercial yachts of Category 2, if a rescue boat complying with sub-sections §17.2.4.1 to §17.2.4.4 above is not carried on board, alternative arrangements may be considered to the satisfaction of the Classification Society or AR, including:

(a) a rescue boat of a SOLAS Approved Type which is towed by the main commercial yacht; or

(b) a rescue boat which is stowed in the lazarette or garage, provided that it can be launched in a reasonable time frame, and there is the ability to efficiently use the commercial yacht itself to recover an unconscious person from the water; or

(c) a boat that is suitable for rescue purposes carried on board but which is of a non-SOLAS Approved Type. In this case, the boat shall have a capacity for not less than four (4) persons and may be a rigid, rigid inflatable, or inflatable tender and be capable of displaying a highly visible color. Tubes of non-SOLAS inflatable boats shall have a minimum of three (3) buoyancy compartments built in; or

(d) if it can be demonstrated that by virtue of the commercial yachts maneuverability it can effectively act as the rescue boat itself. In this case, the marked area shall be fully visible from the bridge wings or other areas where the commercial yacht may be operated. However, consideration shall be given to §17.2.3 above.

.7 For commercial yachts of less than 500 GT, there shall be no requirement to recover the rescue boat if the casualty can be recovered on board from the rescue boat while it is still in the water.

.8 Launching appliances shall be in accordance with §17.1.2 above.

17.2.5 Life Buoys

.1 Life buoys shall be provided on the port and starboard sides of the bridge. They shall be equipped with self-activating light and smoke signals and shall be capable of quick release. Where this is impractical, they may be stowed at the side of the commercial yacht and provided with conventional release arrangements.

.2 Life buoys shall meet SOLAS requirements; however, they may be white in color.

.3 A buoyant line is required to be attached to two (2) of the life buoys and is to have a minimum length of 30 m. Reference should be made to the Table 13 above of life-saving appliances in §17.1.

.4 For commercial yachts of less than 500 GT and of Category 2, the Light and Smoke Man Overboard (MOB) signal may be replaced by a SOLAS approved marker strobe light.

.5 Each lifebuoy shall be marked with the commercial yacht's name and Port of Registry.

17.2.6 Lifejackets

.1 One (1) adult SOLAS approved lifejacket shall be provided for each person on board plus spare adult lifejackets sufficient for at least 10% of the total number of persons on board, or two (2), whichever is the greater. Each lifejacket shall be fitted with a light and whistle.

.2 There shall be at least two (2) SOLAS approved inflatable lifejackets included in the number of lifejackets for use of the crew of any rescue boat or inflatable boat carried on board described in §17.2.6.1 above.

.3 In addition to the adult lifejackets, a sufficient number of infant and children's lifejackets shall be provided for children carried on the commercial yacht.

.4 Sufficient means of securing lifejackets to persons weighing up to 140 kg and a chest girth of up to 1,750 mm shall be provided as necessary.

17.2.7 Immersion Suits

.1 One (1) approved immersion suit complying with the requirements of §17.1.1 above shall be provided for each person on board.

.2 A commercial yacht which operates between latitude of 30° North (N) and 30° South (S) need not be provided with immersion suits or exempted in accordance with Chapter I, §2.4.2.

.3 A commercial yacht which operates outside of the parallels of latitude 30°N and 30°S or in areas where the seawater temperature at the time of operation is known and considered to be high enough to forego the safety provision of immersion suits, shall apply to the Administrator for a dispensation or exemption from the requirements. Full details of the proposed location, period of operation, and established temperature data from recognized authorities shall be provided. Immersion suits shall always be provided for the rescue boat crew and for the crew on repositioning voyages.

.4 A commercial yacht provided with a rescue boat shall be equipped with immersion suits for all persons carried in the rescue boat (see §17.2.4 above).

.5 If applicable, immersion suits shall be provided for persons weighing up to 140 kg or with chest girths of 1,750 mm and for children.

.6 The periodic testing of immersion suits shall be conducted according to IMO Circular MSC/Circ.1114. Suits less than 10 years old shall be tested at intervals not exceeding three (3) years; suits older than 10 years may be required to be tested more frequently. Immersion suit air tests may be carried out by the commercial yacht's crew if manufacturer's equipment is available. In such cases, the test shall be attested to in writing by the Master or his or her representative. Any necessary repairs shall be conducted by an approved service provider in accordance with the manufacturer's recommendations.

17.2.8 Pyrotechnics

Flares, complying with the requirements of Chapter III of the LSA Code, shall be positioned in a readily accessible location and in the quantities stated in Table 13 in §17.1 above.

17.2.9 Line Throwing Appliances

For commercial yachts in Category 2, appliances capable of firing two (2) shots of line are required; for all other categories, four (4) shots of line capability is required.

17.2.10 Emergency Position-Indicating Radio Beacon (EPIRB)

.1 A 406 megahertz (MHz) EPIRB shall be provided and installed in a readily accessible location ready to be manually released, capable of being placed in a survival craft, or floating free if the commercial yacht sinks. See *Frequency, Identification Numbers, Testing and Disposition of Satellite EPIRBs* (MN 4-033-5).

.2 All EPIRBs are to be registered with the Administrator and are to be tested and serviced annually by an approved service provider.

17.2.11 Search and Rescue Transponder (SART)

The SART is to be stowed in an easily accessible position so that it can be rapidly placed in any survival craft. Means are to be provided in order that it can be mounted in the survival craft at a height of at least 1 m above sea level.

17.2.12 General Alarm

.1 For a commercial yacht of less than 500 GT this alarm may consist of the commercial yacht's whistle or siren.

.2 For a commercial yacht of 500 GT and above the requirements of §17.2.12.1 above are to be supplemented by an electrically operated bell or Klaxon system, which is to be powered from the commercial yacht's main supply and also the emergency source of power (see §14.4 above).

.3 For commercial yachts of 85 m in Load Line Length and above, a public address system or other suitable means of communication shall be provided in addition to the requirements of §17.2.12.2 above.

17.2.13 Lighting

.1 Alleyways, internal and external stairways, and exits giving access to the muster and embarkation stations shall be adequately lighted. For a commercial yacht of 500 GT and above, the lighting shall also be supplied from the emergency source of power (see §14.0 above).

.2 Adequate lighting is to be provided in the vicinity of survival craft, launching appliance(s) (when provided), and the area overboard in way of the launching position(s). The lighting shall be supplied from the emergency source of power.

17.2.14 Life-Saving Signals and Rescue Poster

When display space in the wheelhouse is restricted, the two (2) sides of a SOLAS No. 2 poster (as contained in life raft equipment packs) may be displayed in lieu of a SOLAS No. 1 poster. Symbols used shall conform to MN 2-011-10.

18.0 NAVIGATIONAL LIGHTS, SHAPES, AND SOUND SIGNALS

18.1 General

.1 Commercial yachts shall comply with the requirements of COLREGS '72.

.2 Navigation lights shall have a primary and secondary means of power. The secondary source of power shall comply with §13.5.3 and §14.4.1 above, as applicable.

.3 For commercial yachts less than 500 GT the requirement for duplication of navigation lights may be satisfied by having a spare lamp that can be fitted within three (3) minutes while underway.

.4 The use of approved LED lights shall be to the satisfaction of the Administrator.

19.0 NAVIGATIONAL AND BRIDGE EQUIPMENT AND BRIDGE VISIBILITY

19.1 Requirements

All commercial yachts shall be provided with the following equipment in Table 14 below, as applicable:

Table 14 (see Sections of this Chapter as noted below)					
Navigational Equipment	**Yachts up to 149 GT**	**Yachts from 150 GT to 299 GT**	**Yachts from 300 GT to 499 GT**	**Yachts of 500 GT to 2,999 GT**	**Yachts of 3,000 GT and above**
Standard Magnetic Compass (see §19.2.1)	✓	✓	✓	✓	✓
Spare Magnetic Compass (see §19.2.1.2)		✓	✓	✓	✓
Gyro Compass or Spare Magnetic Compass Bowl (see §19.2.2)				✓	✓
Global Positioning System (GPS) (see §19.2.3)	✓	✓	✓	✓	✓
Automatic Identification System (AIS) (see §19.2.4)			✓	✓	✓
Long-Range Identification and Tracking (LRIT) System (see §19.2.5)			✓	✓	✓
9 GHz Radar (see §19.2.6)			✓	✓	✓
3 GHz Radar (see §19.2.7)					✓
Radar Reflector (see §19.2.15)	✓				
Nautical Charts and Nautical Publications or Electronic Chart Display and Information System (ECDIS) (see §19.2.8)	✓	✓	✓	✓	✓
Pelorus or Compass Bearing device (see §19.2.1.1(c))	✓	✓	✓	✓	✓
Echo Sounder (see §19.2.10)			✓	✓	✓
Speed and Distance Measuring Device (see §19.2.9)			✓	✓	✓
Rudder, Propeller, Thrust, Pitch and Operational Mode Indicators (see §19.2.11)				✓	✓
Barometer (see §19.2.14)	✓	✓	✓	✓	✓
Anemometer and Inclinometer (Sailing Yachts Only) (see §19.2.14)	✓	✓	✓	✓	✓
Signaling Lamp / Handheld Searchlight (see §19.2.12)	✓	✓	✓	✓	✓
Searchlight (see 19.2.12 and §19.2.13)	✓	✓	✓	✓	✓

Please refer to SOLAS regulation V/19, *Carriage requirements for shipborne navigational systems and equipment*, for additional details.

19.2 Navigational Equipment Requirements

19.2.1 Standard Magnetic Compass

.1 Every commercial yacht shall be fitted with an efficient and approved magnetic compass complying with the following requirements, as appropriate:

(a) on a steel commercial yacht, it shall be possible to correct the compass for coefficients B, C, and D;

(b) the magnetic compass or a repeater shall be so positioned as to be clearly readable by the helmsman at the main steering position. It shall also be provided with an electric light; the electric power supply is to be a twin wire type;

(c) means shall be provided for taking bearings as near as practical over an arc of the horizon of 360°. This requirement may be met by the fitting of a Pelorus or, on a commercial yacht other than a steel commercial yacht, a handheld compass; and

(d) the compass shall be calibrated and a deviation log kept in accordance with *Magnetic Compasses Adjustment* (MN 2-011-32).

.2 A spare magnetic compass interchangeable with the standard magnetic compass shall be provided on all commercial yachts of 150 GT and above.

.3 If the commercial yacht is intended to operate in polar regions (north of 70°N or south of 70°S), the effects on the magnetic compass shall be taken into consideration.

19.2.2 Gyro Compass

All commercial yachts of 500 GT and above shall have a gyro compass complying with the following requirements, as appropriate:

.1 a gyro compass with the ability to determine and display their heading by shipborne non-magnetic means; and which

.2 the helmsman shall be able to clearly read the display at the main steering position. The gyro compass shall also transmit heading information for input to the applicable equipment;

.3 a gyro compass heading repeater with the ability to supply heading information visually at the emergency steering position, if provided; and

.4 a gyro compass bearing repeater shall be provided to take bearings, over an arc of the horizon of 360°, using the gyro compass. However, commercial yachts of less than 1,600 GT shall be fitted with such means as far as is reasonable and practicable.

19.2.3 Global Positioning System (GPS)

Every commercial yacht shall carry a GPS which is accurately integrated with other equipment.

19.2.4 Automatic Identification System (AIS)

.1 AIS Class-A

All commercial yachts of 300 GT and over shall be fitted with an approved AIS in accordance with SOLAS regulation V/19.2.4. Please refer to *Automatic Identification Systems (AIS)* (MN 2-011-17).

.2 AIS Class-B

(a) Commercial yachts that have a permanent tow (such as a tender) and wish to have a dedicated Maritime Mobile Service Identity (MMSI) number programmed in the Class-B AIS of the tender, shall apply to the Administrator to obtain a permanent MMSI number which will be categorized under a "Daughter Craft" MMSI number.

(b) The "Daughter Craft" MMSI number will be declared on the Radio License of the commercial yacht as a permanent identification of the tow. The Administrator must be notified of any changes/alterations made to the "Daughter Craft" in terms of additional radio installation or if the commercial yacht ceases to tow the tender.

19.2.5 Long-Range Identification and Tracking (LRIT) System

Commercial yachts of 300 GT and over shall be capable of complying with the requirements of LRIT in accordance with SOLAS regulation V/19-1. Please refer to *Long-Range Identification and Tracking (LRIT) of Ships* (MN 2-011-25).

19.2.6 9 Gigahertz (GHz) Radar

All commercial yachts of 300 GT and above shall carry an approved 9 GHz radar.

19.2.7 3 GHz Radar

All commercial yachts of 3000 GT and above shall carry a 3 GHz radar or where appropriate by the Administrator a second 9 GHz radar.

19.2.8 Nautical Charts and Nautical Publications or ECDIS

Every commercial yacht shall carry nautical charts and nautical publications to plan and display the commercial yacht's route for the intended voyage and to plot and monitor positions throughout the voyage. An approved ECDIS may also be accepted as meeting the chart carriage requirements provided that the provisions of *Nautical Chart and Publication Carriage and Electronic Chart Display and Information System (ECDIS) Requirements* (MN 7-041-6) are in place.

19.2.9 Speed and Distance Measuring Device

All commercial yachts of 300 GT and above shall carry a speed and distance measuring device, or other means, to indicate speed and distance through the water.

19.2.10 Echo Sounder

All commercial yachts of 300 GT and above shall carry an echo sounding device to measure and display the available depth of water.

19.2.11 Rudder, Propeller, Thrust, Pitch, and Operational Mode Indicators

All commercial yachts of 500 GT and above shall carry rudder, propeller, thrust, pitch, and operational mode indicators. These indicators shall be located so that they may be clearly read at the conning position.

19.2.12 Signaling Lamp

Every commercial yacht shall carry an approved signaling lamp and/or handheld searchlight that is not solely dependent on the commercial yacht's main source of electrical power.

19.2.13 Searchlight

Every commercial yacht shall carry an efficient fixed or portable searchlight suitable for MOB search and rescue operations. This may be the approved signaling lamp required by §19.2.12 above.

19.2.14 Instruments

Every commercial yacht shall carry a barometer. Every sailing commercial yacht shall carry an anemometer and an inclinometer.

19.2.15 Radar Reflector

On commercial yachts less than 150 GT, if practicable, a radar reflector, or other means, to enable detection by ships navigating by radar at both 9 and 3 GHz shall be carried.

19.3 Bridge Navigational Watch Alarm System (BNWAS)

Certain sized commercial yachts are required to be fitted with an approved BNWAS. Please refer to *Bridge Navigation Watch Alarm Systems* (MN 2-011-40) for full details.

19.4 Bridge Visibility

.1 Commercial yachts of 55 m or more in length shall comply with SOLAS regulation V/22. Alternative arrangements may be considered by the Administrator or its representative. Commercial yachts of less than 55 m in length should comply as far as is reasonable and practicable to do so.

.2 Windows to the conning position(s) shall not be of either polarized or tinted glass (also see §5.6.5 above). Portable tinted screens may be provided for selected windows.

.3 Windows which are not inclined from the vertical plane top out in accordance with SOLAS regulation V/22 shall have appropriate measures to avoid adverse reflections from within to the satisfaction of the Administrator or its representative.

20.0 RADIO

20.1 General

.1 All commercial yachts, regardless of GT, shall comply with SOLAS Chapter IV, as amended by the Code.

.2 For commercial yachts less than 300 GT, alternative arrangements for the radio installations shall be considered by the Administrator on a case-by-case basis.

20.2 Sources of Energy

.1 All commercial yachts regardless of GT shall comply with SOLAS regulation IV/13, as amended by this section.

.2 Commercial yachts of less than 300 GT not meeting the requirements of SOLAS regulation II-1/43 shall have sufficient reserve power supply to operate the radio equipment for a minimum of three (3) hours.

20.3 Watches

While at sea, a commercial yacht shall maintain a continuous watch in accordance with SOLAS regulation IV/12.

20.4 Radio Personnel

A commercial yacht shall carry at least one (1) person qualified for distress and safety radio communication purposes. This person shall hold a Certificate of Competence (CoC) issued or endorsed by the Administrator. Refer to the *RMI Requirements for Seafarer Certification* (MI-118).

20.5 Global Maritime Distress and Safety System (GMDSS) Log Books

All commercial yachts are required to keep records of communications relating to distress, urgency, safety traffic, records of important incidents connected with the radio service, regular positions of the commercial yacht, and results of tests carried out on the radio equipment. Records must be stored on board and be available for inspection as required.

21.0 PUBLICATIONS

Commercial yachts shall carry the most up-to-date and applicable versions[4] of the below Table 15 list of publications, based on the GT of the commercial yacht as indicated. Please note these requirements represent the minimum in terms of compliance. Refer to *Requirements on Carriage of Publications On Board Ships* (MN 1-000-3).

[4] Please note, in determining what version is applicable, a number of factors need to be taken into account, including but not limited to the date that the keel of the yacht was laid.

Table 15				
Publication	**Yachts up to 299 GT**	**Yachts from 300 GT up to 399 GT**	**Yachts from 400 GT up to 499 GT**	**Yachts of 500 GT and above**
COLREGS	✓	✓	✓	✓
IAMSAR Vol. III	✓	✓	✓	✓
Code of Signals	✓	✓	✓	✓
ILLC	✓	✓	✓	✓
ICS	✓	✓	✓	✓
ISM	-	Recommended	Recommended	✓
ISPS	-	Recommended	Recommended	✓
MARPOL*	-	-	✓	✓
MI-103	✓	✓	✓	✓
MI-300	✓	✓	✓	✓
NAUTCH-P	✓	✓	✓	✓
NAUTCH-E	✓	✓	✓	✓
NAUTICAL ALMANAC	✓	✓	✓	✓
SAILING DIRECTIONS-P	✓	✓	✓	✓
SAILING DIRECTIONS-E	✓	✓	✓	✓
TIDE TABLES-P	✓	✓	✓	✓
TIDE TABLES-E	✓	✓	✓	✓
LIGHT LIST-P	✓	✓	✓	✓
LIGHT LIST-E	✓	✓	✓	✓
NTVRP	-	-	✓	✓
SOLAS	-	✓	✓	✓
STCW	✓	✓	✓	✓
STMAN	✓	✓	✓	✓

* Commercial yachts of 400 GT and greater and all commercial yachts that are certified to carry more than 15 persons shall carry a copy of MARPOL.

Acronym Guide:

COLREGS	Convention on the International Regulations for Preventing Collisions at Sea
IAMSAR	International Aeronautical and Maritime Search and Rescue Manual
ILLC	International Convention on Load Lines
ICS	International Code of Signals
ISM Code	International Safety Management Code
ISPS Code	International Ship and Port Facility Security Code

MARPOL	International Convention for the Prevention of Pollution from Ships
MI-103	RMI Yacht Code
MI-300	RMI Combined Publication Folder
NAUTAL	Nautical Almanac
NAUTCH-E	Nautical Charts – Electronic
NAUTCH-P	Nautical Charts – Paper
NTVRP	Non-tank Vessel Response Plan (when in US waters only)
SOLAS	International Convention for the Safety of Life at Sea
STCW	International Convention on Standards of Training, Certification and Watchkeeping for Seafarers
STMAN	Safety and Training Manual (SOLAS Training Manual)

22.0 DECK EQUIPMENT

22.1 Equipment

Commercial yachts will be considered to have adequate deck equipment on board if such equipment is approved and installed in accordance with the Rules of Class and complies with the requirements of this Code.

22.2 Anchors

A minimum of two (2) anchors are required on all commercial yachts, one of which shall be rigged and ready for use at all times. The deployment system shall be able to be fully operational when there is a power failure.

22.3 Commercial Sailing Yachts

.1 The sizing of anchors and cables for commercial sailing yachts shall take into account the additional windage effect of the masts and rigging.

.2 For square rigged commercial sailing yachts, the guidance on the approximate increase in anchor mass and cable strength required is as follows:

(a) for commercial sailing yachts of less than 50 m in Load Line Length, typically 50% above the requirements for a typical commercial motor yacht having the same total longitudinal profile area of hull and superstructure as the commercial sailing yacht under consideration; and

(b) for commercial sailing yachts 100 m in Load Line Length and over, typically 30% above the requirements for a typical motor yacht having the same total longitudinal profile area of hull and superstructure as the commercial sailing yacht under consideration; and

(c) for square rigged commercial sailing yachts of 50 m and more but less than 100 m in Load Line Length, the increase should be obtained by linear interpolation.

22.4 Towing Arrangements

.1 Accessible efficient strong securing points shall be provided for the attachment of towlines for the commercial yacht to tow and be towed, fore and aft, respectively.

.2 All commercial yachts of 500 GT and above shall be provided with a documented emergency towing procedure, as outlined in SOLAS regulation II-1/3-4. Such procedures shall be carried on board the commercial yacht for use in emergency situations and be based on existing arrangements and equipment available on board. Further guidance for the development of this document can be found in MSC.1/Circ.1255.

23.0 MEDICAL STORES

23.1 General

.1 All commercial yachts shall carry medical stores as outlined by *Medical Care On Board Ship and Ashore: Medicine Chest, Recordkeeping and Responsibilities and Training for Medical Care* (MN 7-042-1), as applicable, which provides details of medicines and medical stores to be carried or their suitable equivalent.

.2 Medical training requirements for the crew of the commercial yacht are provided in the *RMI Requirements for Seafarer Certification* (MI-118).

24.0 COMMERCIAL YACHT-SHORE TRANSFER

24.1 Tenders

.1 A tender shall be fit for its intended use.

.2 A lifeboat or rescue boat may be utilized as a tender, provided that the craft, equipment, and its launching appliances are certified and in compliance with the LSA Code.

.3 Safety equipment shall be provided on each tender as appropriate to its intended range and areas of operation. Such safety equipment shall include, but not be limited to, appropriately sized life jackets for each person on board the tender, appropriate radio communications, a portable fire extinguisher, and a mechanical or portable foghorn or claxon.

.4 The tender itself shall be clearly marked with the number of persons that it can safely carry and the name of the mother yacht.

.5 In the case of crafts with gasoline powered engines, the safety requirements for the carriage of gasoline outlined in §10.1 above shall be met.

.6 An official TSC confirming an equivalence of safety shall be issued by an AR. This statement has a validity of five (5) years, subject to required annual surveys being satisfactorily held.

.7 It is the responsibility of the Master to ensure that the operations of any water craft belonging to the mother yacht of any type are in compliance with the rules and regulations imposed by the local port authorities for the area of operation, including any training as required.

24.2 Pilot Transfer Arrangements

.1 Commercial yachts engaged on voyages in the course of which pilots may be employed shall be provided with pilot transfer arrangements. These arrangements shall have due regard for the international standards of safe practice for the boarding and landing of pilots in accordance with SOLAS regulation V/23.

.2 Periodic inspections and tests to confirm proper construction, installation, operation, and maintenance of equipment for the boarding arrangements of pilots shall be carried out in accordance with *Pilot Transfer Arrangements* (MN 7-041-3).

24.3 Gangways, Accommodation Ladders, and Passerelles

.1 Safe passage for all persons to and from the commercial yacht shall be provided when the commercial yacht is in port or at anchor.

.2 The construction, installation, maintenance, and inspection/survey requirements for gangways and accommodation ladders on commercial yachts shall be guided by the requirements of *Means of Ship Embarkation/Disembarkation* (MN 7-043-1).

.3 For the purpose of §24.3.2 above, passerelles installed on any commercial yacht shall be regarded as a means of boarding.

.4 If provided, a gangway or equivalent does not need to be of an Approved Type if the commercial yacht is less than 30 m in length.

.5 Approved accommodation ladders shall be provided on a commercial yacht of 120 m in length and over.

.6 Access equipment and immediate approaches to it shall be adequately illuminated.

.7 Reference standards include:

(a) BSMA78:1978, Specification for aluminum shore gangways (excluding the maximum overall widths specified in table 2);

(b) BSMA89:1980, Specification for accommodation ladders;

(c) ISO7061:1993, Shipbuilding - Aluminum shore gangways for seagoing vessels;

(d) ISO5488:1979, Shipbuilding - Accommodation ladders;

(e) ISO799: 2004, Ships and marine technology - Pilot ladders; and

(f) ISO7364:1983, Shipbuilding and marine structures - Deck machinery - Accommodation ladder winches.

25.0 HELICOPTER AND LANDING FACILITIES

All commercial yachts, where helicopter operations to and from the commercial yacht are performed, shall comply with the applicable rules and regulations in accordance with Annex 4 of this Code.

26.0 SUBMERSIBLES

26.1 General Requirements

.1 All submersibles to be installed on a yacht shall be designed and built in accordance with the Rules of Class and maintained in Class.

.2 When installing a submersible, special consideration shall be given to the stability and structure of the commercial yacht.

26.2 Lifting Appliances and Attachments

.1 The design and construction of the lifting appliance(s) and their attachment to the structure of the commercial yacht and the associated stowage of the submersible shall be in accordance with the Rules of Class or certified as suitable for their intended use.

.2 Lifting appliances and associated equipment shall be maintained and tested in accordance with the LSA Code Chapter VI/6.1.2.

26.3 Operation

.1 The safe operation of the submersible is the responsibility of the Master.

.2 The Master shall ensure that the operator of the submersible has had the proper training and is certified to operate the submersible.

.3 An operations manual shall be available on board the commercial yacht. The manual shall contain, as a minimum, the lowering and recovery procedures, fire-fighting, and safety procedures and drills.

27.0 SAFE WORKING PRACTICES

27.1 Safe Work Aloft, Over the Side, and on the Bowsprit of Commercial Sailing Yachts

.1 When access to the rigging is likely to be an operational necessity, provisions shall be made to enable people to work safely aloft, over the side, and out on the bowsprit. The arrangements shall be documented in the commercial yacht's Safety Management System (SMS) manual, to the satisfaction of the Administrator.

.2 The arrangements provided shall be based on established safe working practices for the type of commercial yacht. The arrangements may include, but not be limited to:

(a) safety nets below the bowsprit;

(b) safety grab-rails (pulpit) fixed along the bowsprit to act as handholds and safety points for safety harnesses;

(c) safety harnesses shall be provided for work aloft and on the bowsprit;

(d) sufficient footropes permanently rigged to enable the crew to stand on them while working out on the yards or on the bowsprit;

(e) safety jackstays (in metal) fixed along the top of the yards, to provide handholds and act as strong points for safety harnesses; and

(f) means of safely going aloft, such as:

(i) fixed metal steps or ladders attached to the mast;

(ii) traditional ratlines; or

(iii) bosun's chair.

.3 The use of "rail and trolley" systems or similar systems for undertaking work over the side is permitted, provided that:

(a) the systems installed comply with BS standards;

(b) the systems are installed and maintained in accordance with the manufacturer's instructions and have been tested and approved by the commercial yacht's Classification Society;

(c) the operations of these systems are fully described in the commercial yacht's SMS manual for safe working practice; and

(d) a full risk assessment is carried out prior to the work carried out and that the crew members working with the equipment are trained and competent for the use of these systems.

27.2 Noise and Vibration

.1 Commercial yachts of 1,600 GT and above shall comply with the IMO Code on Noise Levels On Board Ships (Noise Code).

Commercial yachts less than 1,600 GT shall meet the requirements of the Noise Code, so far as is reasonable and practicable.

.2 Noise and vibration in the accommodation spaces shall be limited to the maximum extent possible and in accordance with the Noise Code and with any other relevant international standards as far as is reasonable and practicable.

.3 Accommodation, recreational, and catering facilities shall be located as far as is reasonable and practicable from the engines, steering gear rooms, deck winches, ventilation, heating and air-conditioning equipment, and other noisy machinery.

.4 Acoustic insulation or other appropriate sound-absorbing materials shall be used in the construction and finishing of bulkheads, deck heads, and decks within the sound-producing spaces as well as self-closing noise-isolating doors for machinery spaces.

27.3 Training Manual

.1 The commercial yacht's training manual shall include details of established safe working practices specific to the commercial yacht, as well as guidance on:

(a) training for members of the crew;

(b) personal clothing and protection from injury;

(c) health and safety awareness;

(d) prevention of pollution; and

(e) life-saving appliances and fire-fighting equipment.

.2 The training manual shall be commercial yacht type specific and contain instructions for the actual equipment brands/types on board. The information in regards to the life-saving appliances and fire-fighting equipment provided on the commercial yacht and the best methods of survival shall be explained in easily understood terms and illustrations, where appropriate (reference should be made to SOLAS regulation III/35, and SOLAS regulation II-2/15).

.3 The training manual shall be written in the working language of the commercial yacht and in English.

.4 The Master shall conduct drills and/or trainings for the crew. Refer to RMI Maritime Regulations (MI-108), regulation 7.41, as applicable. The drills and/or trainings shall also be documented in the SMS manual.

27.4 Instructions for Onboard Maintenance

Instructions shall be provided describing the maintenance procedures for all safety and fire-fighting appliances in easily understood terms and illustrated wherever possible. Reference shall be made to *Lifesaving Appliances and Systems* (MN 2-011-37) and *Maintenance and Inspection of Fire Protection Systems and Appliances* (MN 2-011-14).

27.5 Safety Management System

.1 For commercial yachts of less than 500 GT, a Mini-ISM is required (reference Annex 1 of this Code). Mini-ISMs shall be to the satisfaction of the Administrator or its representative, as applicable.

.2 All commercial yachts of 500 GT and above must comply with the ISM Code and SOLAS Chapter IX.

27.6 Maritime Security

All commercial yachts of 500 GT and above must comply with the ISPS Code requirements and SOLAS regulation XI-2.

28.0 PASSENGERS

28.1 Limitations

.1 Commercial yachts shall carry no more than 12 passengers regardless of the number of beds or berths provided. Commercial yachts that wish to carry more than 12 passengers will be considered PAXYs and, as such, must meet the requirements of Chapter III of this Code.

.2 Commercial yachts may apply to the Administrator for a temporary dispensation to carry more passengers, on an excursion of very limited duration and range, during which no

additional passenger would be berthed on board for an overnight passage. In order to apply for such a dispensation, the owner or Master may request an application form from the Administrator.

29.0 MANNING

29.1 Minimum Safe Manning

Please refer to *Minimum Safe Manning Requirements for Vessels* (MN 7-038-2) for commercial yacht minimum safe manning requirements.

29.2 Crew Certification

For information on crew certification in the RMI, please refer to the *RMI Requirements for Seafarer Certification* (MI-118), §7.0.

CHAPTER III:

PASSENGER YACHTS (PAXYs)

1.0 STATUTORY AND NATIONAL REQUIREMENTS

.1 All PAXYs shall comply with the requirements outlined in this Chapter III, as well as the applicable requirements of Chapter I of this Code and all other applicable RMI laws and regulations.

.2 Please refer to *RMI Yacht Compliance Requirements* (MI-103A) for a comprehensive matrix of statutory and national requirements for all PAXYs.

.3 The Administrator may consider, on a case-by-case basis, the registration of PAXYs, provided that the operations, design criteria, construction standards, and other safety measures comply to the applicable chapters of SOLAS or any other substantial equivalency submitted to the IMO for passenger ships carrying not more than 36 passengers that is acceptable to the Administrator.

.4 PAXYs shall be built to the standards of applicable international conventions for passenger ships carrying not more than 36 passengers and shall be constructed under the supervision of, and certified as, a passenger ship by a Classification Society. Where it is not reasonable or practicable for the foregoing standards to be met, a yacht constructed and certified under the United Kingdom Maritime and Coastguard Agency (MCA) *Code of Practice for Yachts Carrying 13 to 36 Passengers* may, at the discretion of the Administrator, be accepted as an equivalent to the standards of applicable international conventions.

.5 In instances where the applicable regulations of SOLAS or any other substantial equivalency submitted to the IMO cannot be met, the Administrator may, on a case-by-case basis, consider equivalent arrangements as referenced in Chapter I, §2.4.2 of this Code.

1.1 Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS '72)

All PAXYs shall comply with the requirements of COLREGS '72.

1.2 International Convention on Tonnage Measurement of Ships, 1969 (ITC)

All PAXYs of 24 m or more in length are required to be surveyed and admeasured to the ITC and issued with an International Tonnage Certificate.

1.3 International Convention for the Prevention of Pollution from Ships (MARPOL)

All PAXYs are required to comply with the provisions of MARPOL, subject to the applicability of each MARPOL Annex.

Please refer to MN 2-013-11.

1.3.1 MARPOL Annex I

All PAXYs shall comply with the requirements of MARPOL Annex I. PAXYs of 400 GT and above shall be surveyed to verify compliance and issued with the following:

(a) International Oil Pollution Prevention Certificate; and

(b) Supplement to the International Oil Pollution Prevention Certificate; and shall maintain

(c) an Oil Record Book.*

**All PAXYs less than 400 GT shall maintain a similar oil record book.*

1.3.2 MARPOL Annex IV

.1 PAXYs of 400 GT and above or certified to carry more than 15 persons, regardless of tonnage, shall comply with the requirements of MARPOL Annex IV. PAXYs, to which Annex IV applies, shall be surveyed to verify compliance and issued with an International Sewage Pollution Prevention Certificate.

.2 In certain cases, MARPOL Annex IV references stipulated criteria for "ships…which are certified to carry more than 15 persons." The Administrator recognizes that this is not always applicable to all PAXYs due to non-mandatory requirements of certain certificates.

Therefore, for the purposes of MARPOL Annex IV, where the number of persons carried on board is a stipulated criterion, the figure to be used shall be that number shown on the Passenger Ship Safety Certificate (supplement).

1.3.3 MARPOL Annex V

.1 All PAXYs shall comply with the requirements of MARPOL Annex V. PAXYs of 400 GT and above and those certified to carry 15 persons or more, regardless of tonnage, shall be surveyed to verify compliance and must maintain a Garbage Record Book.

.2 All PAXYs of 100 GT and above or certified to carry 15 persons or more, regardless of tonnage, are required to have a Garbage Management Plan.

.3 In certain cases, MARPOL Annex V references stipulated criteria for "every ship…which is certified to carry 15 or more persons." The Administrator recognizes that this is not always applicable to all PAXYs due to non-mandatory requirements of certain certificates.

Therefore, for the purposes of MARPOL Annex V, where the number of persons carried on board is a stipulated criterion, the figure to be used shall be that number shown on the Passenger Ship Safety Certificate (supplement).

1.3.4 MARPOL Annex VI

All PAXYs shall comply with the requirements of MARPOL Annex VI. PAXYs of 400 GT and above are required to be surveyed to verify compliance and be issued with the following:

(a) International Air Pollution Prevention Certificate (IAPPC); and

(b) Supplement to the IAPPC; and maintain an

(c) Ozone-Depleting Substances Record Book; and

(d) International Energy Efficiency Certificate (IEEC); and

(e) Ship Energy Efficiency Management Plan (SEEMP).

(f) In addition, PAXYs that are required to comply with Regulation 13 of Annex VI shall have a Technical File and an Engine IAPPC (EIAPPC) for each marine diesel engine over 130 kW.

1.4 Anti-Fouling

.1 All PAXYs shall comply with the requirements of the International Convention on the Control of Harmful Anti-Fouling Systems on Ships. All PAXYs of 400 GT and over and engaged in international voyages shall be issued with the following:

(a) International Anti-Fouling System Certificate; and

(b) Record of Anti-Fouling Systems.

.2 PAXYs of 24 m or more in length but less than 400 GT engaged in international voyages shall carry a Declaration on Anti-Fouling Systems signed by the owner or his/her representative. The Declaration will be accompanied by appropriate documentation such as a paint receipt or contractor invoice.

1.5 International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM Convention)

Upon its entry into force, all PAXYs constructed to carry ballast water shall comply with the requirements of the BWM Convention.

1.6 Nairobi International Convention on the Removal of Wrecks, 2007 (WRLC)

All PAXYs of 300 GT and above are required to be insured and certificated under the WRLC. Please refer to MN 2-011-45.

1.7 International Convention on Civil Liability for Bunker Oil Pollution Damage (CLBC)

All PAXYs of 1,000 GT and above are required to be insured and certificated under the CLBC. Please refer to MN 2-011-27.

1.8 Athens Convention Relating to the Carriage of Passengers and Their Luggage by Sea (PAL)

All PAXYs are required to be insured and certified under the PAL Convention.

Please refer to *Athens Convention Relating to the Carriage of Passengers and Their Luggage by Sea, 2002, Certification Requirements* (MN 2-011-46) for further details.

1.9 International Convention on Load Lines, 1966 (ILLC)

All PAXYs shall be surveyed in accordance with the applicable provisions of the ILLC as modified by this Code and be issued with the following:

(a) International Load Line Certificate; and

(b) Record of Conditions of Assignment.

1.10 International Convention for the Safety of Life at Sea (SOLAS)

All PAXYs shall comply with the SOLAS requirements as outlined below.

1.10.1 SOLAS Chapter II-1, II-2, III, and IV: Passenger Ship Safety Certificate

All PAXYs are required to be inspected and surveyed under the requirements of SOLAS Chapters II-1, II-2, III, and IV and any other relevant requirements of SOLAS for passenger ships and shall be issued a Passenger Ship Safety Certificate to which a Record of Equipment for the Passenger Ship Safety Certificate (Form P) shall be permanently attached.

1.10.2 Classification and Certification

.1 All PAXYs must maintain classification and statutory certification with a Classification Society. Refer to MG 2-11-15 for a list of the Administrator recognized Classification Societies.

.2 PAXYs must have a class passenger ship or passenger yacht notation and must maintain statutory compliance with the PAXY requirements regardless of whether the PAXY is operating in a private capacity under a private yacht COR.

1.10.3 SOLAS XI-1/3: IMO Number

.1 All PAXYs of 100 GT and above shall be marked with their IMO number.

.2 The permanent marking shall be plainly visible and shall be painted in a contrasting color on a horizontal surface visible from the air.

.3 The permanent marking referred to in §1.10.3.2 above shall be not less than 200 mm in height. The width of the marks shall be proportionate to the height.

.4 In addition, the permanent marking shall be located in an unobstructed location on an end transverse bulkhead of the machinery space.

.5 The permanent marking referred to in §1.10.3.4 above shall not be less than 100 mm in height. The width of the marks shall be proportionate to the height. This marking may be made by raised lettering, by cutting it in, by center punching it, or by any other equivalent method of marking the identification number which ensures that the marking is not easily expunged.

.6 For PAXYs constructed of a material other than steel or metal where the requirements of marking as referred in §1.10.3.5 above are not feasible, alternative methods of permanent marking may be approved by the Administrator.

1.11 International Safety Management (ISM) Code

All PAXYs are required to comply with the requirements of SOLAS Chapter IX and the ISM Code and be issued with the following:

(a) A copy of the controlling Document of Compliance (DoC); and

(b) Safety Management Certificate (SMC).

Please see MN 2-011-13 for further details.

1.12 International Ship and Port Facility Security (ISPS) Code

All PAXYs are required to comply with the requirements of SOLAS Chapter XI-2 and the ISPS Code, and be issued an International Ship Security Certificate (ISSC).

Please see MN 2-011-16 for further details.

1.13 Maritime Labour Convention, 2006 (MLC, 2006)

.1 All PAXYs are required to comply with the requirements of MLC, 2006 and shall be subject to inspections to verify compliance.

.2 All PAXYs of 500 GT or more shall carry on board a Maritime Labour (ML) Certificate evidencing compliance.

.3 For PAXYs under 500 GT, certification is not required, but voluntary certification is recommended.

1.14 Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW)

All PAXYs shall have an MSMC and the crew must be appropriately certified in accordance with §9.0 of this Chapter.

2.0 CONVENTION SURVEYS

2.1 Survey Standards

.1 Statutory and other certification work may be undertaken by those organizations as specified in MG 2-11-15.

.2 Further, entities authorized by Classification Societies and ARs to conduct in water surveys, radio surveys, etc., are also duly recognized by the Administrator.

2.2 Survey Requests

All requests for survey and certification must be made to an appropriate Classification Society or AR.

2.3 Exemptions and Equivalencies

In accordance with Chapter I, §2.4 of this Code, all requests for exemptions and/or equivalencies from the application of specific requirements as specified in any international convention or code must be formally made in writing, with supporting documentation, to the Administrator and must be submitted via the Classification Society or AR conducting the survey. The Administrator will authorize an exemption if and when it is deemed appropriate.

2.4 Statements of International Convention Voluntary Compliance

PAXYs that voluntarily comply with the provisions of an international convention or code, which would not otherwise apply to the particular PAXY, shall have Statements of

International Convention Voluntary Compliance issued instead of convention Certificates of Compliance.

3.0 MAINTAINING COMPLIANCE WITH THE CODE

3.1 General

In accordance with RMI laws and regulations, all PAXYs regardless of size and registration date, must be annually inspected by an AR, as applicable, to verify compliance with this Code. This Compliance Verification is in addition to, and separate from, any other inspections or surveys that may be required to meet Class or international statutory requirements.

See MN 2-011-42 for further instructions on compliance verification requirements.

3.2 Statutory Compliance and RMI Certification

Every PAXY shall maintain valid statutory international convention certification issued by a Classification Society. PAXYs must also maintain a valid RMI PAXY Compliance Certificate (PAXYCC).

.1 All PAXYs, regardless of size, shall be certified for compliance to the international statutory conventions by a Classification Society.

.2 It shall be the responsibility of owners/managers and Masters to ensure that their PAXYs are in compliance with the requirements of all applicable international treaties, conventions, protocols, codes, and agreements which have come into force and to which the RMI is a party.

.3 It is the responsibility of the owner/manager and Master to maintain the validity and endorsement of all applicable certificates at all times. Invalidation of any certificate issued to the PAXY may result in the withdrawal of the COR.

.4 The Classification Society or AR shall advise the Administrator promptly, in writing, when it suspends, withdraws, cancels, or alters the operational limitations of its certificates, together with the reason(s) why such action was taken.

.5 The Classification Society or AR shall promptly inform the Administrator when a PAXY is found to be in operation with deficiencies or discrepancies, such that the condition of the PAXY or its equipment does not meet the requirements or comply with the particulars of its certificates, the requirements of applicable international conventions, and/or national requirements, including this Code.

4.0 PAXY-SHORE TRANSFER

4.1 Tenders

.1 A tender shall be fit for its intended use.

.2 A lifeboat or rescue boat may be utilized as a tender, provided that the craft, equipment, and its launching appliances are certified and in compliance with the LSA Code.

.3 Safety equipment shall be provided on each tender as appropriate to its intended range and areas of operation. Such safety equipment shall include, but not be limited to, appropriately sized life jackets for each person on board the tender, appropriate radio communications, a portable fire extinguisher, and a mechanical or portable foghorn or claxon.

.4 The tender itself shall be clearly marked with the number of persons that it can safely carry and the name of the mother yacht.

.5 In the case of crafts with gasoline powered engines, the safety requirements for the carriage of gasoline outlined in SOLAS regulation II-2/20 shall be met.

.6 An official TSC confirming an equivalence of safety shall be issued by an AR. This statement has a validity of five (5) years, subject to required annual surveys being satisfactorily held.

.7 It is the responsibility of the Master to ensure that the operations of any water craft belonging to the mother yacht of any type are in compliance with the rules and regulations imposed by the local port authorities for the area of operation, including any training as required.

5.0 HELICOPTER AND LANDING FACILITIES

All PAXYs, where helicopter operations to and from the PAXY are performed, shall comply with the applicable rules and regulations in accordance with Annex 4 of this Code.

6.0 SUBMERSIBLES

6.1 General Requirements

.1 All submersibles to be installed on a PAXY shall be designed and built in accordance with the Rules of Class and maintained in Class.

.2 When installing a submersible, special consideration shall be given to the stability and structure of the PAXY.

6.2 Lifting Appliances and Attachments

.1 The design and construction of the lifting appliance(s) and their attachment to the structure of the PAXY and the associated stowage of the submersible shall be in accordance with the Rules of Class or certified as suitable for their intended use.

.2 Lifting appliances and associated equipment shall be maintained and tested in accordance with the LSA Code Chapter VI/6.1.2.

6.3 Operation

.1 The safe operation of the submersible is the responsibility of the Master.

.2 The Master shall ensure that the operator of the submersible has had the proper training and is certified to operate the submersible.

.3 An operations manual shall be available on board the PAXY. The manual shall contain, as a minimum, the lowering and recovery procedures, fire-fighting, and safety procedures and drills.

7.0 SAFE WORKING PRACTICES

7.1 Safe Work Aloft, Over the Side, and on the Bowsprit of Sailing PAXYs

.1 When access to the rigging is likely to be an operational necessity, provisions shall be made to enable people to work safely aloft, over the side, and out on the bowsprit. The arrangements shall be documented in the sailing PAXY's SMS manual, to the satisfaction of the Administrator.

.2 The arrangements provided shall be based on established safe working practices for the type of PAXY. The arrangements may include but not be limited to:

(a) safety nets below the bowsprit;

(b) safety grab-rails (pulpit) fixed along the bowsprit to act as handholds and safety points for safety harnesses;

(c) safety harnesses shall be provided for work aloft and on the bowsprit;

(d) sufficient footropes permanently rigged to enable the crew to stand on them while working out on the yards or on the bowsprit;

(e) safety jackstays (in metal) fixed along the top of the yards, to provide handholds and act as strong points for safety harnesses; and

(f) means of safely going aloft, such as:

(i) fixed metal steps or ladders attached to the mast;

(ii) traditional ratlines; or

(iii) bosun's chair.

.3 The use of "rail and trolley" systems or similar systems for undertaking work over the side is permitted, provided that:

(a) the systems installed comply with BS standards;

(b) the systems are installed and maintained in accordance with the manufacturer's instructions, and have been tested and approved by the PAXY's Classification Society;

(c) the operations of these systems are fully described in the PAXY's SMS manual for safe working practice; and

(d) a full risk assessment is carried out prior to the work carried out and that the crew members working with the equipment are trained and competent for the use of these systems.

8.0 PASSENGERS

8.1 Limitations

.1 PAXYs shall carry no more than 36 passengers regardless of the number of beds or berths provided.

.2 PAXYs may apply to the Administrator for a temporary dispensation to carry more passengers, on an excursion of very limited duration and range, during which no additional passenger would be berthed on board for an overnight passage. In order to apply for such a dispensation, the owner or Master may request an application form from the Administrator.

9.0 MANNING

9.1 Minimum Safe Manning

Please refer to MN 7-038-2 for the minimum safe manning requirements.

9.2 Crew Certification

For information on crew certification in the RMI, please refer to the *RMI Requirements for Seafarer Certification* (MI-118), §7.0.

CHAPTER IV:

PRIVATE YACHTS LIMITED CHARTER (PYLCs)

1.0 STATUTORY AND NATIONAL REQUIREMENTS

All PYLCs shall comply with the requirements outlined in this Chapter IV, as well as the applicable requirements of Chapter I of this Code and all other applicable RMI laws and regulations.

Please refer to *RMI Yacht Compliance Requirements* (MI-103A) for a comprehensive matrix of statutory and national requirements for all PYLCs.

1.1 Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS '72)

All PYLCs shall comply with the requirements of COLREGS '72.

1.2 International Convention on Tonnage Measurement of Ships, 1969 (ITC)

All PYLCs of 24 m or more in length are required to be surveyed and admeasured to the ITC and issued with an International Tonnage Certificate.

1.3 International Convention for the Prevention of Pollution from Ships (MARPOL)

All PYLCs are required to comply with the provisions of MARPOL, subject to the applicability of each MARPOL Annex.

Please refer to MN 2-013-11.

1.3.1 MARPOL Annex I

All PYLCs shall comply with the requirements of MARPOL Annex 1. PYLCs of 400 GT and above shall be surveyed to verify compliance and issued with the following:

(a) International Oil Pollution Prevention Certificate; and

(b) Supplement to the International Oil Pollution Prevention Certificate; and shall maintain

(c) an Oil Record Book*

**All PYLCs less than 400 GT shall maintain a similar oil record book.*

1.3.2 MARPOL Annex IV

.1 PYLCs of 400 GT and above or certified to carry more than 15 persons, regardless of tonnage, shall comply with the requirements of MARPOL Annex IV. PYLCs to which Annex IV applies, shall be surveyed to verify compliance and issued with an International Sewage Pollution Prevention Certificate.

.2 In certain cases, MARPOL Annex IV references stipulated criteria for "ships…which are certified to carry more than 15 persons." The Administrator recognizes that this is not always applicable to all PYLCs due to non-mandatory requirements of certain certificates.

.3 Therefore, for the purposes of MARPOL Annex IV, where the number of persons carried on board is a stipulated criterion, the figure to be used shall be that number shown on the Cargo Ship Safety Equipment Certificate (supplement). If the PYLC is not required to hold a Cargo Ship Safety Equipment Certificate, the figure to be used shall be the number of all persons for whom permanent overnight accommodations can be provided.

1.3.3 MARPOL Annex V

.1 All PYLCs shall comply with the requirements of MARPOL Annex V. PYLCs of 400 GT and above and those certified to carry 15 persons or more, regardless of tonnage, shall be surveyed to verify compliance and must maintain a Garbage Record Book.

.2 All PYLCs of 100 GT and above or certified to carry 15 persons or more, regardless of tonnage, are required to have a Garbage Management Plan.

.3 In certain cases, MARPOL Annex V reference stipulated criteria for "every ship…which is certified to carry 15 or more persons." The Administrator recognizes that this is not always applicable to all PYLCs due to non-mandatory requirements of certain certificates.

Therefore, for the purposes of MARPOL Annex V, where the number of persons carried on board is a stipulated criterion, the figure to be used shall be that number shown on the Cargo Ship Safety Equipment Certificate (supplement). If the PYLC is not required to hold a Cargo Ship Safety Equipment Certificate, the figure to be used shall be the number of all persons for whom permanent overnight accommodations can be provided.

1.3.4 MARPOL Annex VI

All PYLCs shall comply with the requirements of MARPOL Annex VI. PYLCs of 400 GT and above are required to be surveyed to verify compliance and be issued with the following:

(a) International Air Pollution Prevention Certificate (IAPPC); and

(b) Supplement to the IAPPC; and maintain an

(c) Ozone-Depleting Substances Record Book; and

(d) International Energy Efficiency Certificate (IEEC); and

(e) Ship Energy Efficiency Management Plan (SEEMP).

(f) In addition, PYLCs that are required to comply with Regulation 13 of Annex VI shall have a Technical File and an Engine IAPPC (EIAPPC) for each marine diesel engine over 130 kW.

1.4 Anti-Fouling

.1 All PYLCs shall comply with the requirements of the International Convention on the Control of Harmful Anti-Fouling Systems on Ships. All PYLCs of 400 GT and over and engaged in international voyages shall be issued with the following:

(a) International Anti-Fouling System Certificate; and

(b) Record of Anti-Fouling Systems.

.2 PYLCs of 24 m or more in length but less than 400 GT engaged in international voyages shall carry a Declaration on Anti-Fouling Systems signed by the owner or his/her representative. The Declaration will be accompanied by appropriate documentation such as a paint receipt or contractor invoice.

1.5 International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM Convention)

Upon its entry into force, all PYLCs constructed to carry ballast water shall comply with the requirements of the BWM Convention. Equivalent compliance with the BWM Convention for PYLCs used solely for recreation or competition less than 50 m in length overall and with a maximum ballast water capacity of 8 m^3 shall be determined by the Administrator in accordance with Regulation A-5 of the BWM Convention, taking into account any guidelines developed by the IMO.

1.6 Nairobi International Convention on the Removal of Wrecks, 2007 (WRLC)

All PYLCs of 300 GT and above are required to be insured and certificated under the WRLC. Please refer to MN 2-011-45.

1.7 Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW)

All PYLCs that are 24 m in length and above and/or 80 GT and above shall have an MSMC and the crew must be appropriately certified in accordance with §21.0 of this Chapter.

2.0 CONVENTION SURVEYS

2.1 Survey Standards

.1 Statutory and other certification work may be undertaken by those organizations specified in MG 2-11-15.

.2 Further, those entities authorized by Classification Societies and ARs to conduct in water surveys, radio surveys, etc., are also duly recognized by the Administrator.

2.2 Survey Requests

All requests for survey and certification must be made to an appropriate Classification Society or AR.

2.3 Statements of International Convention Voluntary Compliance

Those PYLCs that voluntarily comply with the provisions of an international convention or code, which would not otherwise apply to the particular PYLC, shall have Statements of International Convention Voluntary Compliance issued instead of convention Certificates of Compliance.

3.0 MAINTAINING COMPLIANCE WITH THIS CODE

3.1 General

In accordance with RMI law and regulations, all PYLCs regardless of size and registration date, must be annually inspected by an AR, as applicable, to verify compliance with the Code. This Compliance Verification is in addition to, and separate from, any other inspections or surveys that may be required to meet Class or international statutory requirements.

See MN 2-011-42 for further instructions on compliance verification requirements.

3.2 Statutory Compliance and RMI Certification

Every PYLC shall maintain valid statutory international convention certification issued by a Classification Society or AR. PYLCs must also maintain a valid RMI PYLC Compliance Certificate (PYLCCC).

.1 Classed PYLCs regardless of size shall be certified for compliance to the international statutory conventions by a Classification Society.

.2 Unclassed PYLCs of any size may be certified for compliance to the international statutory conventions by an AR.

.3 Unclassed PYLCs shall have the outside of the PYLC's bottom and related items examined in accordance with *Examination of a Yacht's Hull and Related Items* (YTC 4).

.4 It shall be the responsibility of owners/managers and Masters to ensure that their PYLCs are in compliance with the requirements of all applicable international treaties, conventions, protocols, codes, and agreements which have come into force and to which the RMI is a party.

.5 It is the responsibility of the owner/manager and Master to maintain the validity and endorsement of all applicable certificates at all times. Invalidation of any certificate issued to the PYLC may result in the withdrawal of the COR.

.6 The Classification Society or AR shall advise the Administrator promptly, in writing, when it suspends, withdraws, cancels, or alters the operational limitations of its certificates, together with the reason(s) why such action was taken.

.7 The Classification Society or AR shall promptly inform the Administrator when a PYLC is found to be in operation with deficiencies or discrepancies, such that the condition of the PYLC or its equipment does not meet the requirements or comply with the particulars of its certificates, the applicable international conventions, and/or RMI requirements, including the Code.

3.3 PYLCs Constructed in Accordance with the Code

PYLCs constructed or which underwent a major conversion in accordance with the Code shall, upon verification of compliance by a Classification Society or AR, be issued a Statement of Compliance. Classed PYLCs shall have the Statement of Compliance issued by

a Classification Society and unclassed PYLCs shall have the Statement of Compliance issued by an AR. Please refer to *Delegation of Yacht Code Compliance Reviews and Surveys of New Construction and Conversion of Yachts* (YTC 2) for full details.

4.0 CONDITIONS OF ASSIGNMENT

4.1 General

.1 PYLCs assigned Category 0 or 1 shall comply with the Conditions of Assignment in Chapter II of the ILLC, as amended by the Code.

.2 In individual cases, when the requirements of ILLC or the Code cannot be met, the Administrator may consider alternative arrangements to achieve adequate safety standards, such as, imposing operational limitations.

.3 Limitations or restrictions on the use of the PYLC at sea will be recorded on the PYLCCC and MSMC issued to the PYLC.

4.2 Hatchways and Skylight Hatches

4.2.1 General requirements

.1 All openings leading to spaces below the weather deck not capable of being closed weather-tight must be enclosed within either an enclosed superstructure or a weather-tight deckhouse of adequate strength.

.2 All exposed hatchways which give access to spaces below the weather-tight weather deck are to be of substantial weather-tight construction and provided with efficient means of closure. Weather-tight hatch covers shall be permanently attached to the PYLC and provided with adequate arrangements for securing the hatch closed.

.3 Hatches that are to be used for escape purposes shall be provided with covers that are capable of being opened from both sides. An escape hatch shall be readily identifiable and easy and safe to use, having due regard to its position and access to and from the hatch.

.4 Flush deck hatches are acceptable for escape hatches and lockers on deck, if constructed to the Rules of Class. Wells for rescue boats with flush hatches are acceptable provided they meet the Rules of Class for wells.

4.2.2 Hatchways Open at Sea

Hatches should be kept closed at sea. However, hatchways that may be kept open for access at sea for lengthy periods are to be kept as small as is practical (a maximum of 1 m^2 in a clear area), located on the centerline of the PYLC, and fitted with coamings in accordance with the Tables in §4.3 below. Covers of hatchways are to be permanently attached to the hatch coamings and, where hinged, the hinges are to be located on the forward side. Alarm switches should be installed that indicate the open/close position of the hatches in the wheelhouse.

4.3 Doorways and Companionways Located Above the Weather Deck for PYLCs Category 0 and 1

.1 Exposed doors in deckhouses and superstructures that give access to spaces below the weather deck are to be weather-tight, and door openings shall have coaming heights in accordance with Table 16 below:

Table 16		
Location	**Category 0**	**Category 1**
a	600 mm	300 mm
b	300 mm	150 mm
c	150 mm	75 mm

Location:

a if the door is in the forward quarter length of the PYLC and used when the PYLC is at sea;

b if the door is in an exposed forward facing location aft of the forward quarter length; or

c if above the surface of the deck when the door is in a protected location aft of the forward quarter length or an unprotected door on the first tier deck above the weather deck.

.2 Weather-tight doors shall be so arranged to open outwards and when located in the side of the house, shall be hinged at the forward edge. Alternative closing arrangements may be considered if it can be demonstrated that the efficiency of the closing arrangements and their ability to prevent the ingress of water will not impair the safety of the PYLC.

.3 An access door leading directly to the engine room from the weather deck shall be fitted with a coaming height in accordance with Table 17 below:

Table 17		
Location	**Category 0**	**Category 1**
Position 1	600 mm	450 mm
Position 2	380 mm	200 mm

.4 Coaming heights, construction, and securing standards for weather-tight doors that are provided for use only when the PYLC is in port or at anchor in calm sheltered waters and are locked closed when the PYLC is at sea may be considered individually.

.5 Companion hatch openings:

(a) Companionway hatch openings that give access to spaces below the weather deck shall be fitted with a coaming, the top of which is at least 300 mm above the deck.

(b) Washboards may be used to close the vertical opening. When washboards are used, they shall be so arranged and fitted that they will not be dislodged readily. Provisions are to be made to ensure that they are stowed in a secure location when not in use.

(c) The maximum breadth of an opening in a companion hatch shall not exceed 1 m.

4.4 Skylights for PYLCs Category 0 and 1

.1 All skylights shall be of efficient weather-tight construction approved by a Classification Society. The location of the skylights shall be on or as near to the centerline of the PYLC as practicable.

.2 Skylights of the opening type shall be provided with efficient means whereby they can be secured in the closed position.

.3 A minimum of one (1) portable cover for each size of glazed opening shall be provided which can be accessed rapidly and efficiently secured in the event of a breakage of the skylight.

.4 Skylights that are provided as a means of escape shall be operable by hand from both sides. An escape skylight shall be readily identified and easy and safe to use, having due regard to its position and to the access to and from the skylight. Portable covers for these skylights shall be able to be opened from the inside to enable escape to the outside in case of emergency.

.5 The skylight glazing material and its method of securing within the frame shall meet the appropriate marine standards as defined in BS, EN, or other recognized national or international standards.

4.5 Side Scuttles/Portlights for PYLCs Category 0 and 1

.1 Side scuttles/portlights shall be of an Approved Type. Oval portholes can be accepted on the basis of equivalent area (0.16 m^2) and similar scantlings to round portholes. They shall be of strength appropriate to the location in the PYLC and meet recognized international marine standards.

.2 Where large portlights with an area greater than 0.16 m^2 are to be fitted in the hull below the freeboard deck, these shall be subject to special consideration and approval. Protective covers, supporting structure, and glazing strength shall be to the satisfaction of a Classification Society.

.3 All side scuttles/portlights fitted in locations protecting openings to spaces below the weather deck or fitted in the hull of the PYLC, shall be provided with a deadlight which is to be permanently attached and is capable of securing the opening watertight in the event of a breakage of the scuttle glazing. Proposals to fit side scuttles/portlights with portable deadlights will be subject to special consideration and approval by the Administrator, having regard for the location of the side scuttles and ready availability of deadlights to be fitted.

.4 Side scuttles/portlights fitted in the hull of the PYLC below the level of the freeboard deck shall be either non-opening or of a non-readily opening type, have a glazed diameter of not more than 450 mm, and be in accordance with a standard recognized by the Administrator. The sill height of the side scuttles/portlights shall be at least 500 mm or 2.5% of the breadth of the PYLC, whichever is the greater, above the smallest freeboard assigned to the PYLC. Scuttles/portlights of the non-readily opening type must be secured closed when the PYLC is in navigation.

.5 Side scuttles/portlights shall not be fitted in the hull in way of the machinery space.

4.6 Windows

.1 Windows shall be of an Approved Type. They shall be of strength appropriate to their location in the PYLC and meet appropriate marine standards defined in BS, EN, or another recognized national or international standard such as ISO 11336-1:2012(E). Where windows are not to the requirements of the Code, they may be accepted subject to review and approval by the Administrator. Compliance with the Rules of Class is acceptable.

.2 Windows fitted in superstructures or weather-tight deckhouses are to be substantially framed and efficiently secured to the structure. The glass is to be of the toughened safety glass type that breaks into small sized particles. The glass may be laminated or monolithic, but lamination alone is not acceptable if the glass breaks into dangerous fragments that are assumed to detach from the plastic layers. Polycarbonate windows are accepted provided they meet the standards for unrestricted seagoing commercial service. Bonded windows may be accepted by the Administrator on a case-by-case basis.

Safety standards relating to the provision of large glass doors or windows fitted in the aft end of a superstructure or weather-tight deckhouse will be considered on an individual basis by the Administrator.

.3 Windows should not be fitted in the following locations:

(a) below the freeboard deck;

(b) in the first tier end bulkheads or sides of enclosed superstructures; or

(c) in first tier deckhouses that are considered buoyant in the stability calculations.

Proposals to fit windows in these locations will be subject to special consideration and approval by the Administrator, with regard to the location and strength of the windows and their supporting structure and the availability of strong protective covers for the windows. Such special consideration may also take into account the existence of operational instructions to the Master as to when the strong protective covers must be applied to windows.

.4 For Category 0 PYLCs, storm covers are required for all windows in the front and on the sides of first tier and front windows of the second tier of superstructures or weather-tight deckhouses above the freeboard deck. Where windows are of sandwich construction and their increased toughened safety glass thickness is considered an equivalent to windows fitted with storm covers, the Administrator may consider the arrangement provided that this is recommended by the Classification Society or AR, but a blanking plate is to be provided for each size window.

.5 Windows to the conning position shall not be of either polarized or tinted glass. (See §11.4 below.)

4.7 Ventilators and Exhausts for PYLCs Category 0 and 1

.1 Adequate natural and/or mechanical ventilation is to be provided throughout the PYLC. The accommodation spaces are to be protected from the entry of gas and/or vapor fumes from galley, machinery, exhaust, and fuel systems.

.2 Ventilators in exposed locations are to be of efficient construction and provided with permanently attached means of weather-tight closure. Ventilators serving any space below the freeboard deck or an enclosed superstructure shall have coamings of minimum heights as specified in Table 18 below:

Table 18		
Location	**Category 0**	**Category 1**
Forward Quarter Length	900 mm	450 mm
Elsewhere	760 mm	380 mm

.3 Ventilators shall be kept as far inboard as practicable and the height above the deck of the ventilator opening shall be sufficient to prevent the ingress of water when the PYLC heels.

.4 The ventilation of spaces, such as the machinery space, that must remain open require special attention with regard to the location and height of the ventilation openings above the deck taking into account the effect of the down-flooding angle on stability standard.

.5 The means of closure of ventilators serving the machinery space shall be selected with regard to the fire protection and extinguishing arrangements provided in the machinery space.

.6 Engine exhaust outlets that penetrate the hull below the freeboard deck shall be provided with means to prevent back-flooding into the hull through a damaged exhaust system. At a minimum, PYLCs shall have well-constructed anti-siphon loops on all exhaust lines at a minimum height of 1 m above the waterline or a satisfactory waterbreak system.

4.8 Air Pipes for PYLCs Category 0 and 1

.1 Air pipes serving fuel and other tanks shall be of efficient construction and provided with permanently attached means of weather-tight closure. Means of closure may be omitted if it can be shown that the open end of an air pipe is protected by other structures that will prevent the ingress of water.

.2 Where located on the weather deck, air pipes shall be kept as far inboard as practicable and be fitted with a coaming of sufficient height to prevent inadvertent flooding. Where this is impractical to do so, air pipes may be fitted in a suitable protected area elsewhere, provided that this location is in accordance with the Classification Society or AR. Air pipes to tanks should have coamings of minimum heights as specified in Table 19 below:

Table 19		
Location	**Category 0**	**Category 1**
On Weather Deck	760 mm	380 mm
Elsewhere	450 mm	225 mm

.3 Air pipes to fuel tanks shall terminate at a height of not less than 760 mm above either the top of the filler pipe for a gravity filling tank or the top of the overflow tank for a pressure filling tank.

4.9 Scuppers, Sea Inlets, and Discharges

The standards of the ILLC shall be applied to every discharge led through the shell of the PYLC. All sea inlet and overboard discharges shall be provided with efficient shut-off valves arranged in positions where they are readily accessible at all times.

4.10 Materials for Valves and Associated Piping

.1 Valves that are fitted below the waterline shall be of steel, bronze, or other material having a similar resistance to impact and fire.

.2 The associated piping shall, in areas as indicated above, be of steel, bronze, copper, or other equivalent material that is considered of equal or greater strength than the hull.

.3 Where the use of plastic piping is proposed, it will be considered on an individual basis and full details of the type of piping and its intended location and use shall be submitted to the Administrator for consideration. The Administrator may require tests to be carried out on the plastic piping, as necessary, before approving its use.

.4 The use of flexible piping in any situation should be kept to a minimum compatible with the essential reason for its use. The Administrator or its representative shall approve flexible piping and the means of joining it to its associated hard piping system as fit for the purpose.

4.11 Underwater Lights

Underwater lights shall be of an Approved Type.

4.12 Water Freeing Arrangements for PYLCs Category 0 and 1

.1 The standards for water freeing arrangements shall comply with the ILLC. In individual cases when the requirements of the ILLC cannot be met, the Administrator may consider alternative arrangements to achieve adequate safety standards, such as, operational limitations. In any case, the intention should be to achieve a standard of safety that is at least equivalent to the standard of the ILLC.

.2 When a PYLC is unable to fully comply with the ILLC, the Administrator may take into account the PYLC's past performance in service and the declared area(s) of operation and assign a limited range Category 1. This notation will be recorded on the PYLCCC, as applicable.

.3 Recesses on a PYLC:

(a) any recess in the weather deck shall be of weather-tight construction and shall be self-draining under all normal conditions of heel and trim of the PYLC;

(b) an open swimming pool or spa shall be treated as a recess;

(c) the recess drainage arrangement shall be capable of efficient operation when the PYLC is heeled at an angle of 10° for a motor PYLC and 30° for a sailing PYLC;

(d) the drainage arrangement shall be such as to be able to empty the full recess within three (3) minutes when a PYLC is in a normal seagoing condition and to prevent the backflow of water into the recess; and

(e) any alternative arrangements proposed for consideration by the Administrator should take into account the mass of water and its free surface effect on the intact and damage stability.

4.13 Bulwarks and Guard Rails

.1 PYLCs shall comply with the ILLC requirements, unless compliance is unreasonable or not practicable.

.2 Where there will be people on the deck frequently, bulwarks or three (3) courses of rail or taut wires shall be fitted around the deck at a height of not less than 1,000 mm above the deck. Guard rails or taut wires when used shall be supported by stanchions at intervals not exceeding 2.2 m. Intermediate courses of rails or wires shall be evenly spaced.

.3 Where the function of the PYLC would be impeded by the provision of bulwarks and/or guard rails complying with §4.13.1, alternative proposals detailed to provide an equivalent level of safety for persons on deck may be submitted to the Administrator for review and approval.

4.14 General Equivalence

Where PYLCs cannot comply with the requirements of §4.2 to §4.12 above, equivalent arrangements may be considered by the Administrator. Such proposals should take into account the following non-exhaustive list:

(a) closure at sea;

(b) enhanced bilge pumping capacity and bilge alarms;

(c) full compliance with damage stability;

(d) provision of dorade boxes or baffle systems to prevent direct water ingress;

(e) alternative ventilation for use in bad weather;

(f) excess freeboard – greater than one (1) standard superstructure height;

(g) consideration of risk of down-flooding angle and height due to position;

(h) consideration of risk of green sea loads;

(i) enhanced survey inspection regime; and

(j) operational limitations.

5.0 STABILITY – INTACT AND DAMAGED

5.1 General

.1 PYLCs assigned Category 0 or 1 shall comply with §5.1 to §5.6 below as part of the Conditions of Assignment.

.2 An intact stability standard proposed for assessment of a PYLC configuration, which is not covered by this Code, shall be submitted to the Administrator or its representative for review at the earliest opportunity.

5.2 Intact Stability

5.2.1 All Motor PYLCs

The statical stability curves for seagoing conditions shall meet the following criteria:

(a) the area under the righting lever (GZ) curve shall not be less than 0.055 meter-radians up to φ=30º angle of heel and not less than 0.09 meter-radians up to φ =40º angle of heel, or the angle of down-flooding φ_f[5], if this angle is less than 40º; additionally, the area under the GZ curve between the angles of heel of 30º and 40º or between 30º and the angle of down-flooding φ_f, if this angle is less than 40º, shall not be less than 0.03 meter-radians;

(b) the GZ shall be at least 0.20 m at an angle of heel equal to or greater than 30º;

(c) the maximum GZ shall occur at an angle of heel not less than 25º;

(d) after correction for free surface effects, the initial metacentric height (GM) shall not be less than 0.15 m; and

(e) in the event that the PYLC's intact stability standard fails to comply with the criteria defined in §5.2.1a to §5.2.1d above, the equivalent stability standards of §5.2.2. below may be considered by the Administrator as recommended by the Classification or AR.

5.2.2 Equivalent Stability Standards

Where motor PYLCs are unable to meet the criteria in §5.2.1 above, the following criteria may be used:

(a) the area under the GZ curve shall not be less than 0.07 meter-radians up to 15º angle of heel, when maximum GZ occurs at 15°, and 0.055 meter-radians up to 30º angle of heel, when maximum GZ occurs at 30º or above. Where the maximum GZ occurs at angles of between 15º and 30º, the corresponding area under the GZ curve shall be:

$$0.055 + 0.001(30^\circ - \varphi_{max}) \text{ meter-radians};$$[6]

[5] φ_f is an angle of heel at which openings in the hull, superstructures, or deck-houses which cannot be closed weather-tight immerse. In applying this criterion, small openings through which progressive flooding cannot take place need not be considered as open.

[6] φ_{max} is the angle of heel in degrees at which the GZ curve reaches its maximum.

(b) the area under the GZ curve between the angles of heel of 30º and 40º, or between 30º and the angle of down-flooding (φ_f) if this is less than 40º, shall not be less than 0.03 meter-radians;

(c) the GZ shall be at least 0.20 m at an angle of heel equal to or greater than 30º;

(d) the maximum GZ shall occur at an angle of heel not less than 15º; and

(e) after correction for free surface effects, the GM shall not be less than 0.15 m.

5.2.3 Sailing PYLCs

Sailing PYLC stability will be considered on a case-by-case basis by the Administrator or its representative.

5.3 Damaged Stability

.1 It should be noted that damaged stability is applied as an equivalency for non-compliance with full ILLC Conditions of Assignment.

.2 Therefore, it should be noted that compliance with damaged stability criteria is not required for PYLCs that obtain full compliance with the ILLC Conditions of Assignment.

.3 The watertight bulkheads of the PYLC shall be so arranged that minor hull damage that results in the free flooding of any one (1) compartment, will cause the PYLC to float at a waterline which, at any point, is not less than 75 mm below the weather deck, freeboard deck, or bulkhead deck, if not concurrent.

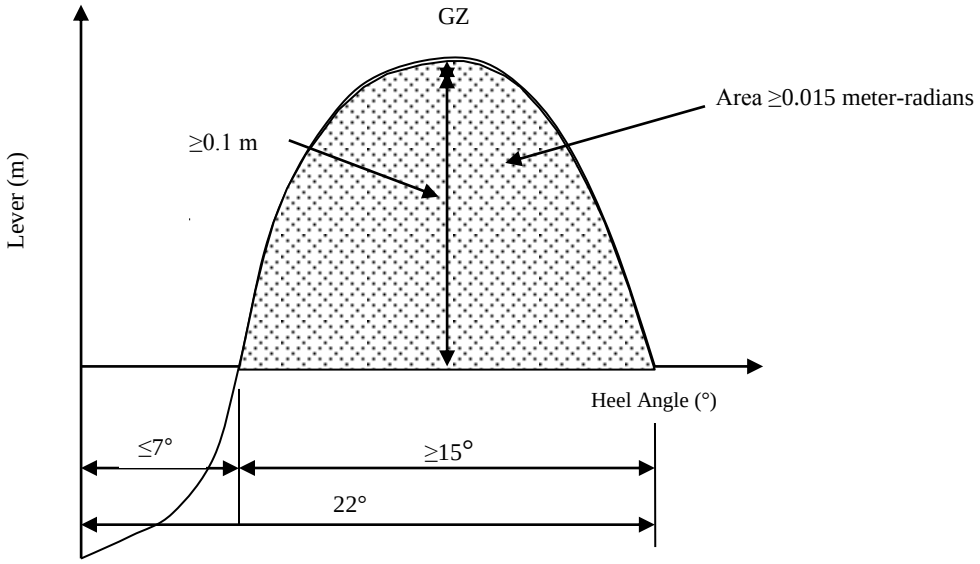
.4 Minor damage shall be assumed to occur anywhere in the length of the PYLC, but not on a watertight bulkhead (transverse or longitudinal).

.5 Standard permeabilities shall be used in this assessment, as outlined in Table 20 below:

Table 20

Space	Percentage Permeability
Stores	60
Stores but not a substantial quantity thereof	95
Accommodation	95
Machinery	85
Liquids	95 or 0 whichever results in the more onerous requirements.

.6 In the damaged condition, the residual stability shall be such that any angle of equilibrium does not exceed 7º from the upright, the resulting GZ curve has a range to the down-flooding angle of at least 15º beyond any angle of equilibrium, the maximum righting lever within that range is not less than 100 mm, and the area under the GZ curve is not less than 0.015 meter-radians.



5.4 Elements of Stability

.1 The lightship displacement, vertical center of gravity (KG), and longitudinal center of gravity of a PYLC shall be determined from the results of an inclining experiment.

.2 An inclining experiment shall be conducted in accordance with a detailed standard as well as a specific test procedure that is approved by the Administrator or its representative. In addition, the experiment shall be conducted in the presence of the Administrator or its representative.

.3 The report of the inclining experiment and the lightship particulars derived shall be approved by the Administrator or its representative.

(a) At the discretion of the owner(s) or managing agent(s), and prior to approval of the lightship particulars by the Administrator or its representative, a margin for safety may be applied to the lightship displacement and KG calculated after the inclining experiment.

(b) Such a margin shall be clearly identified and recorded in the stability booklet.

(c) A formal record shall be kept in the stability booklet of alterations or modifications to the PYLC which affect lightship displacement and/or vertical KGs.

(d) When sister PYLCs are built at the same shipyard, the Administrator or its representative may accept lightweight check on subsequent PYLCs to corroborate the results of the inclining experiment conducted on the lead PYLC of the class.

5.5 Stability Documents

.1 PYLCs (Category 0 and 1) shall be provided with a stability booklet for the Master that is approved by the Administrator or its representative, which contains sufficient information to enable the Master to operate the yacht in compliance with the applicable requirements contained in the Code.

.2 The stability booklet shall take into account the additional guidelines in accordance with the IS Code Part B, Chapter 3, sections:

(a) 3.1 – Effect of free surfaces of liquid in tanks;

(b) 3.2 – Permanent ballast;

(c) 3.3 – Assessment of compliance with stability criteria;

(d) 3.4 – Standard conditions of loading to be examined;

(e) 3.5 – Calculation of stability curves; and

(f) 3.6 – Stability booklet.

.3 Sailing PYLCs shall have a copy of the *Curves of Maximum Steady Heel Angle to Prevent Down-flooding in Squalls* placed in a suitable position for the ready reference of the crew. This shall be a direct copy taken from that contained in the approved stability booklet.

.4 For PYLCs where the damage stability has not been assessed, the following note shall be added to the approved stability booklet:

> *"This yacht has not been assessed for damage stability, and therefore might not remain afloat in the event of damage or flooding."*

5.6 Major Refit or Alterations

.1 A PYLC with previously approved stability information, which undergoes a major refit or major alterations, shall be subjected to re-inclining, in accordance with §5.4 above, and a reassessment of the stability booklet.

.2 Changes in a PYLC's buoyancy (such as a stern extension) which results in a calculated change in displaced volume of more than 2%, shall require a complete reassessment of stability and newly approved stability information booklets.

.3 Reconfiguration of the PYLC's tank arrangement shall require a revision of the PYLC's stability booklet.

.4 Unless it can be clearly demonstrated that no major change has occurred, a lightweight check shall be carried out at an interval not exceeding five (5) years. The PYLC shall be re-inclined whenever, in comparison with the approved stability information, a deviation from the lightship displacement exceeding 2% or a deviation of the lightship longitudinal center of gravity exceeding 1% is found or anticipated.

6.0 FIRE SAFETY AND PREVENTION

6.1 Stowage of Gasoline, Aviation Fuel, and Other Highly Flammable Liquids

.1 Special provisions shall be provided for the safe stowage of gasoline, aviation fuel, and other highly flammable liquids having a flash point of less than 60°C (herein referred to

as "flammable liquids") that may be carried in portable container(s), portable tank(s), permanently fitted tank(s), or other methods.

.2 Portable containers and/or tanks shall not be stored at a location which is exposed to the environment. Weather conditions, sea state, wind force, etc., are to be taken into consideration.

.3 Portable containers and/or tanks shall be kept to a minimum, containing no more than 150 L of flammable liquids in total. Means of carriage to consider for portable containers or tanks may be:

(a) recessed stowage with overboard chutes;

(b) lockers on deck, fully ventilated and with a fixed fire suppression system; or

(c) internal lockers with a fixed fire suppression system.

Such locations shall be clearly marked to identify that flammable liquids are contained within.

.4 Portable containers used for the carriage of flammable liquids shall be constructed to a recognized standard that is appropriate to the type of flammable liquid to be carried. Additionally, each container shall be clearly marked to indicate its contents.

.5 For PYLCs fitted with permanent tanks for the carriage of flammable liquids, each tank should not contain more than 150 L. However, more may be carried in a separate tank so long as they are separated by at least one (1) bulkhead and the ventilation outlet for each tank is designed to sufficiently vent fuel vapors to separate locations at least 10 m apart from another. PYLCs fitted with storage tanks for aviation fuel shall comply with the requirements of *The Civil Aviation Authority's Standards for Offshore Helicopter Landing Areas* (CAP 437) Chapter 7 and in accordance with the Rules of Class.

.6 Enclosed spaces designated for the carriage of flammable liquids and/or spaces designed to contain vehicles, such as jet skis, automobiles, motorcycles, etc., with flammable liquids in their tanks shall be fitted as follows:

(a) with a fixed fire detection and fire alarm system complying with the requirements of SOLAS Chapter II-2 and the FSS Code, Chapter IX;

(b) a gas detection system shall be provided with audible and visible alarms on the bridge and where the crew can be easily alerted;

(c) a manually activated deluge water spray system of capacity to cover the total area of deck and container/vehicle support platform(s) (if any) at a rate of 3.5 L/m² per minute; or for a space in which the provision of a deluge system would be inappropriate and or impractical, alternative provisions shall be made to the satisfaction of the Administrator;

(d) adequate provisions shall be provided for the drainage of water introduced to the space by §6.1.6c above. Drainage shall not lead to machinery or other spaces where a source of ignition may exist nor shall they drain directly overboard;

(e) no electrical equipment shall be installed where flammable mixtures are liable to collect unless such installation is:

(i) essential for operational purposes;

(ii) of a type which will not ignite the mixture concerned;

(iii) appropriate to the space concerned;

(iv) appropriately certified for safe usage;

(v) installed where a suitable gas detection system in accordance with §6.1.6b above exists; and

(vi) installed in accordance with the Rules of Class.

(f) Areas below the weather deck shall be provided with continuous pressure-positive ventilation at each level on which vehicles are transported.

.7 The location of flammable liquid storage, quantities of flammable liquid, and procedures to be followed in an emergency shall be approved and recorded on the fire safety plan and/or SMS manual, as appropriate; and

.8 Each ventilation system shall be totally independent and isolated from all other ventilated spaces.

(a) Each ventilation outlet shall not be less than 10 m separated from any opening to an accommodation space, machinery HVAC/ventilation intake, accommodation HVAC/ventilation intake, or unprotected electrical source.

(b) The ventilation system shall be ducted and mechanically forced in order to continuously supply air to the space so that at least six (6) air changes per hour occur based on the volume of the empty space. Any reduction of the airflow shall be signaled by both audible and visual alarms on the navigating bridge and at the "in port" control station(s).

(c) The ventilation system shall be capable of rapid shut down and automatic closure in the event of a fire.

(d) The exhaust intake shall be located at the lowest point possible in the space.

(e) Any fans located in the space or ducting for the space shall be certified safe for the flammable liquid and its vapor.

(f) The ventilation exhaust shall be provided with flame arresting protection.

6.2 Fire Control Plans

.1 A fire control plan shall be permanently and clearly exhibited in an easily visible and prominent place for the guidance of the Master and crew of the PYLC. The plan may be a combined fire and safety plan and shall be subject to review during plan approval processes on classed yachts by the Classification Society or on unclassed yachts by the AR. The content of the plan shall adequately show the positions of stowage of the life-

saving and fire-fighting appliances. Symbols used on the plan shall comply with the recognized international standard in accordance with MN 2-011-10; however, the symbols used in the fire control plan shall remain consistent to those used to identify the actual location of various equipment.

For each deck, the plan shall, at a minimum, show:

(a) the position of control stations;

(b) sections of the PYLC which are enclosed respectively by "A" class divisions and "B" class divisions;

(c) location of flammable liquid storage (see §6.1 above);

(d) particulars and locations of fire alarms, fire detection systems, suppression systems, and fixed and portable fire extinguishing appliances;

(e) fireman's outfit(s);

(f) means of access and emergency escapes for compartments and decks; and

(g) locations and means of control of systems and openings which should be closed down in a fire emergency.

.2 The plan required by §6.2.1 shall be regularly updated. Updated alterations shall be applied to all copies of the plan without delay. Each copy of the plan shall include a list of alterations and the date on which each alteration was applied.

.3 A duplicate current plan shall be permanently stored in a prominently marked weather-tight enclosure readily accessible to assist non-PYLC fire-fighting personnel who may board the PYLC in a fire emergency.

.4 Instructions relevant to the maintenance and operation of all the equipment and installations on board for the fighting and containment of fire shall be kept in one (1) document holder, readily available in an accessible location.

.5 All PYLCs shall be provided with a training manual, as required. Refer to §19.1 below.

6.3 Ventilation

.1 The ventilation systems provided in way of machinery spaces and galleys are to be designed to sufficiently prevent the accumulation of flammable gasses and be capable of being shut down from outside of the space.

(a) All inlets and outlets of the ventilation system shall be capable of being closed from outside the space.

(b) The locations to operate the shut-off and closure as required shall be such that they are easily accessible in case of an emergency.

.2 Ventilation ducts that feed or exhaust air from high risk areas such as machinery spaces, garages containing vehicles with fuel in their tanks, fuel storage lockers, etc., shall not pass through an accommodation space.

If this requirement is unachievable, the ducts shall be constructed of steel or other equivalent material and insulated to the same fire integrity as the space it serves. In addition, automatic fire dampers shall be fitted to the ducts where they pass through the high risk area into the accommodation space; they shall also be capable of being closed manually.

.3 Ventilation ducts that feed or exhaust air from accommodation, service, and control spaces shall not pass through high risk areas such as machinery spaces, garages containing vehicles with fuel in their tanks, fuel storage lockers, etc.

If this requirement is unachievable, the ducts shall be constructed of steel or other equivalent material and insulated to the same fire integrity as the high risk area through which it passes. In addition, automatic fire dampers shall be fitted to the ducts, where they pass through the accommodation space into the high risk area, on the accommodation side of the ducts that pass through the high risk area. The automatic fire dampers shall also be capable of being closed manually.

.4 Storage rooms that contain highly flammable products shall be provided with ventilation that is separate and independent of other ventilation systems. The inlets and outlets of the systems shall be positioned as to pose the lowest risk possible and shall be fitted with flame arrestors.

.5 Ventilation serving Category A machinery spaces shall be separate and independent of systems serving other spaces.

.6 Ventilation serving enclosed spaces containing free standing fuel tanks shall be separate and independent of systems serving other spaces.

.7 Ventilation shall be provided for areas where batteries are stored in order to prevent dangerous accumulations of flammable gas.

.8 The ducts of exhaust ventilation for clothing driers shall be provided with access at suitable locations for cleaning and inspection.

.9 Exhaust ducts from galley ranges shall be fitted with suitable means for extinguishing and containing the fire within the duct. This system shall be to the satisfaction of the Administrator or its representative.

6.4 Means of Escape

.1 In order to aid with the escape of persons on board in the case of an emergency, means shall be provided to ensure quick and safe access to the life raft embarkation deck.

.2 The arrangement of the hull shall be such that all under deck compartments are provided with a satisfactory means of escape. In the case of the under deck and above deck accommodations and engine room spaces, two (2) means of escape from every restricted space or group of spaces shall be provided.

Only in an exceptional case will one (1) means of escape be accepted by the Administrator, and then only if the means of escape provided does not require passage through a hazardous area, e.g., a galley or engine room; leads directly to the open air; and it can be demonstrated that the provision or retrofitting of a second means of escape would be impractical or detrimental to the overall safety of the PYLC.

.3 Where a second means of escape is via a sealed window, then breakable glass, not polycarbonate or laminated glass, which can be readily broken with a conveniently located crash hammer, may be accepted. Weatherdeck flush hatches may be used as passenger or crew area secondary escapes, but as they are more prone to leakage and more difficult to use, their fitting should be avoided if possible. The Administrator may consider on a case-by-case basis, a second means of escape from an accommodation space that leads via a hatch into another space. In such case, the minimum clear opening of this hatch shall be not less than 600 mm by 600 mm.

.4 All doors in escape routes are to be able to be opened from either side. In the direction of escape, they are to be able to be opened without the use of a key. All handles on the inside of weather-tight doors and hatches are to be non-removable.

.5 In the accommodation, where concealed escapes and routes may be used, they both are to be clearly marked.

.6 All escapes and escape routes shall be kept clear of any other item or fitting that may impede escape during an emergency.

.7 The design of the escapes and escape routes shall be in accordance with international conventions and codes.

6.5 Open Flame Gas Appliances

An open flame gas appliance provided for cooking, heating, or any other purpose shall comply with the requirements of ISO 10239:2008 or an equivalent standard.

6.6 Paints, Varnishes, and Other Finishes

Paints, varnishes, and other finishes which pose an undue fire hazard, shall not be used in the engine room, galley, or in other areas of high fire risk. Elsewhere, such finishes should be kept to a minimum.

6.7 Fire Detection and Fire Alarm Systems

.1 A fire detection and fire alarm system shall be installed in accordance with SOLAS regulation II-2/7 and the FSS Code, Chapter 9. The system shall be provided with a control panel located within the wheelhouse and audible alarms provided in locations where they are most likely to be heard. The system shall be comprised of smoke, heat, or other suitable detectors fitted in the machinery space and galley as a minimum. For PYLCs of 30 m in Load Line Length and over, suitable detectors shall be fitted in all enclosed spaces except those that afford no substantial fire risk such as toilets, bathrooms, void spaces, etc. Manually operated call points shall be placed to ensure a readily accessible means of notification.

.2 In the exceptional case of a space or compartment having only one (1) means of escape (§6.4 above), the integrity of the escape route shall be protected by the installation of smoke detectors that give instantaneous early warning of danger by means of audible and visible alarms in the space or compartment, audible throughout the PYLC.

.3 The installation of fixed fire extinguishing systems not required by this Code, shall be done to the satisfaction of the Administrator.

7.0 MACHINERY FOR PYLCs OF 300 GT AND ABOVE

7.1 General Requirements

.1 Where a PYLC operates with periodically unattended machinery spaces, the machinery shall meet the requirements of SOLAS regulation II-1/E to the extent that is reasonable and practicable.

.2 Plastic piping may be accepted where the piping and the arrangements for its use meet the requirements of the 2010 FTP Code.

.3 The requirements for main propulsion are based upon the installation of diesel powered units, burning distillate fuels which are not required to be heated. When other types of main propulsion systems are proposed, the arrangements and installation may be considered by the Administrator.

.4 Where gas turbines are to be fitted, reference should be made to Chapter 9.3 of the HSC Code, which shall be used as guidance and the installation shall be to the satisfaction of the Administrator or its representative.

7.2 Installation

.1 Notwithstanding the requirements referred to in §6.1 above, the machinery, fuel tanks, and associated piping systems and fittings shall be of a design and construction adequate for the service for which they are intended.

.2 The machinery, fuel tanks, and associated piping systems and fittings shall be installed and protected so as to reduce to a minimum any danger to persons during normal movement about the PYLC; due regard shall be made to moving parts, hot surfaces, and other hazards.

.3 Means shall be provided to isolate any source of fuel that may feed a fire in an engine space. Fuel shut-off valves shall be capable of being closed from a position outside the engine space. The valve(s) shall be fitted as close as possible to the fuel tank(s).

.4 When a glass fuel level gauge is fitted, it shall be of the "flat glass" type with self-closing valves between the gauge and the tank.

.5 Notwithstanding the requirements of §6.1 above, in a fuel supply system to an engine unit, when a flexible section of piping is installed connections shall be of a screw type or equivalent Approved Type. Flexible pipes shall be fire resistant or metal reinforced or otherwise protected from fire.

.6 All fuel lines are to be properly supported by suitable brackets to the satisfaction of the Administrator or its representative. Materials and fittings shall be of a suitable recognized national or international standard that provides for a fire rating of at least 800°C for 30 minutes.

.7 Steel filter bowls are required; glass or plastic filter bowls are not acceptable.

.8 External high-pressure fuel delivery pipes between the high pressure fuel pumps and fuel nozzles are to be protected with approved jacketed tubing capable of containing fuel

spills in case of a fuel line failure. Means for the collection of fuel, including alarm arrangements, shall be provided in the event of a fuel line failure.

.9 Fuel oil lines shall not be located immediately above or near units of high temperature including exhaust manifolds, silencers, or other equipment required to be insulated. Fuel oil lines shall be arranged far apart from hot surfaces, electrical installations, or other sources of ignition.

.10 Fuel oil line joints shall be protected (anti-splash tape or equivalent) to avoid spraying or leaking onto a source of ignition.

.11 Multi-engine installations which are supplied from one (1) common fuel source shall be provided with means of isolating the fuel supply to the individual engines. The means of isolation shall not affect the operation of the other engine(s) and shall be operable from a position which would not be rendered inaccessible by a fire or spill on any of the engines.

.12 Machinery exhaust systems shall not normally pass through any accommodation spaces unless they are fitted in a gas tight trunk or each space is fitted with a carbon monoxide detector where the alarm is to be provided locally and at a continuously manned station.

7.3 Steering Gear

7.3.1 Steering Systems

.1 The steering gear shall be capable of turning 35° from one side to 35° on the other side at the maximum ahead service speed of the PYLC and, under the same conditions, 35° from one side to 30° on the other side in not more than 28 seconds.

.2 Where the main steering gear comprises two (2) or more identical power units, the conditions of §7.3.1.1 shall apply for each single unit.

.3 When appropriate to the safe steering of the PYLC, the steering gear shall be power operated.

7.3.2 Emergency Steering

In the event of failure to the main steering system, means for emergency steering shall be provided.

7.4 Bilge Pumping Arrangements

7.4.1 Pumps

.1 All PYLCs shall be equipped with at least two (2) fixed and independently powered pumps with suction pipes so arranged that any compartment can be effectively drained when the PYLC is heeled to an angle of up to 10° under all practical circumstances.

.2 The location of pumps and their individual power supplies and controls, including those for bilge valves, shall be such that in the event of any one (1) compartment being flooded another pump is available to control progressive flooding to other compartments.

.3 Each bilge pump suction line, other than the emergency suction line, shall be fitted with an efficient strum box or strainer.

.4 Portable semi-submersible bilge pumps, preferably diesel driven, may be considered by the Administrator or its representative as an alternative to one (1) of the two (2) required pumps.

7.4.2 Periodically Unmanned Machinery Spaces

In the case of a PYLC where the propulsion machinery space may be unmanned at any time, a bilge level alarm shall be fitted. The alarm shall be able to provide an audible and visual warning in the crew mess and in the wheelhouse. The location of the audible and visual alarm may be approved by the Administrator elsewhere on the PYLC if it is considered that such a location may be more practical.

7.4.3 Pumping and Piping Arrangements

.1 Pumping and piping arrangements for bilges into which fuel or other oils of similar or higher fire risk could collect, under either normal or fault conditions, shall be kept clear of accommodation spaces and separate from accommodation bilge systems. Bilge level alarms which meet the requirements of §7.4.2 above shall be fitted to all such bilges in spaces that are unmanned at any time.

.2 Approved plastic bilge piping may be accepted outside the engine room. The materials used for bilge piping in the engine room shall meet the fire resistant requirements of a Classification Society.

.3 All distribution boxes and manually operated valves in connection with the bilge pumping arrangements shall be in positions which are accessible under ordinary circumstances.

.4 It shall be ensured that satisfactory emergency bilge pumping (independent of the main bilge pumps) is provided.

.5 The bilge system shall be designed to ensure that there is no direct uncontrolled discharge of bilge water into the marine environment.

.6 PYLCs of less than 400 GT shall be equipped, as far as practicable, to retain oil or oily mixtures on board and/or discharge them in accordance with the requirements of MARPOL Annex I, regulation 15.6.

.7 PYLCs of 400 GT and above shall full comply with the regulations of MARPOL Annex I, except as specified otherwise in Annex I. For further guidance, please refer to *MARPOL Standard Discharge Connectors on Yachts* (TC 5 Rev. 1).

.8 Special consideration shall be given to MN 2-013-3.

7.5 Electrical Installations

7.5.1 Installation

.1 Overload and short circuit protection of all circuits shall be provided, except engine starting circuits supplied from batteries.

.2 Lighting circuits, including emergency circuits, shall be distributed through all spaces and in such a manner that a total blackout cannot occur due to the tripping of a single protective device.

.3 Electrical devices working in potentially hazardous areas, into which petroleum vapor or other hydrocarbon gas may leak, shall be provided with protection against the risk of igniting the gas. Reference should be made to §6.1 above.

.4 Exposed metal, such as casings, of electrical machines and equipment, which are not intended under normal conditions to conduct electricity but which are liable under fault conditions to do so, shall be earthed unless the machines or equipment are:

(a) supplied at a voltage not exceeding 50 V direct current or 50 V root mean square between conductors (auto-transformers shall not be used for the purpose of achieving this voltage); or

(b) supplied at a voltage not exceeding 250 V by safety isolating transformers supplying only one (1) consuming device; or

(c) constructed in accordance with the principle of double insulation.

.5 When a distribution system with no connection to earth is used for power, heating, or lighting, whether it is main or emergency, a device capable of indicating an abnormally low insulation value shall be provided.

.6 Where a risk of lightning strike is identified reference shall be made to ISO 10134:2003, and the proper protection provided.

.7 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. The Administrator may permit the use of special types of cables such as radio frequency cables, which do not comply with this requirement. Further:

(a) electric cables and wiring serving essential or emergency power, lighting, internal communications, or signals shall so far as is practicable be routed clear of galleys, laundries, machinery spaces of Category A and their casings, and other high fire risk areas.

(b) electric 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.

.8 Electric cables and wiring shall be installed and supported in such a manner as to avoid chafing and other damage.

7.5.2 Emergency Sources of Power

.1 An emergency source of electrical power shall be provided on board the PYLC.

.2 The electrical power, associated transforming equipment (if any), means to transfer power, and the emergency switchboard shall be located above the uppermost continuous deck and shall be readily accessible from the open deck.

(a) The Administrator may consider alternative arrangements for the location of the emergency source of power as long as the location is protected from fire and flooding; however, it shall never be forward of the collision bulkhead. The electrical emergency switchboards shall in all cases be located above the uppermost continuous deck.

(b) When an emergency generator is provided, the alternative location must be readily accessible from an open deck and separated from main engines and main switchboards to ensure continued operation. The emergency generator shall be self-contained.

.3 Emergency electrical power shall be sufficient to provide power for three (3) hours duration at maximum output, which includes powering all of the following:

(a) power supply to navigation lights;

(b) VHF radio;

(c) ship earth radio station;

(d) MF or MF/HF radio (if installed);

(e) internal communication equipment required in an emergency;

(f) fire detection alarm system and fire door holding and release system;

(g) intermittent operation signaling lamp, ships whistle, and manually operated call points;

(h) all internal signals required in an emergency;

(i) one (1) fire pump; and

(j) one (1) bilge pump.

.4 Emergency electrical power shall be sufficient for a period of 30 minutes if any of the following are installed:

(a) watertight doors; or

(b) emergency arrangements to bring the elevator to deck level for escape.

7.5.3 Emergency Lighting

An emergency source of lighting shall be provided which shall be independent of the general lighting system and sufficient to enable persons to make their way from the accommodations or working spaces up to the open deck and evacuate the PYLC, if necessary. This lighting, supplemented by flashlights, shall also be sufficient to permit emergency repairs.

7.5.4 Batteries

.1 Batteries shall be of a type suitable for marine use and not susceptible to leakage.

.2 Batteries shall be suitably stored, secured, and sea fastened.

.3 In areas where batteries are stored, adequate ventilation shall be provided to prevent an accumulation of gas that may be emitted.

.4 In areas where unsealed batteries are stored, personal protective equipment shall consist, at a minimum, of protective gloves, fully closed goggles or face mask, eye wash, and an apron.

.5 Particular caution, with respect to fire hazards, should be taken when using electronic portable devices powered by lithium-ion batteries.

8.0 FIRE-FIGHTING EQUIPMENT FOR PYLCs

8.1 General Requirements

.1 Fire-fighting appliances shall be of an Approved Type and shall be to the satisfaction of the Administrator or its authorized representative.

.2 Any fire-fighting appliances provided in addition to those required by this section shall be of an Approved Type.

.3 The location, installation, testing, and maintenance of all equipment shall be to the satisfaction of the Administrator.

.4 The location of concealed fire-fighting appliances shall be clearly marked; however, the marking need not comply with IMO signs, but must be suitable to identify the location of the fire-fighting equipment, taking into account the décor.

8.2 Specific Requirements

8.2.1 Fire Pumps

.1 At least two (2) fire pumps shall be provided on board a PYLC; of which one (1) must be an independent power driven pump.

.2 The power-driven fire pump shall have a capacity of:

$$2.5 \times (1+0.066 \times (L(B+D))^{0.5})^2 \ m^3/hour$$

Where:

L is the Load Line Length;

B is the greatest molded breadth; and

D is the molded depth measured to the bulkhead deck at amidships.

.3 The pump shall, when discharging at full capacity through any two (2) fire hydrants, be capable of maintaining a pressure of 0.2N/mm^2 at each hydrant so long as the fire hose can be effectively controlled at this pressure.

.4 The second fire pump, if not meeting the requirements of §8.2.1.2 above, shall have the capacity of at least 80% of that required in §8.2.1.2 above and may be:

(a) a portable fire pump with a permanent sea connection external to the machinery space and having the ability to feed the fire main; or

(b) a bilge pump that can be, by means of valves, connected to the fire main.

.5 Each centrifugal pump shall be provided with a non-return check valve in the connection to the fire main.

8.2.2 Fire Main and Hydrants

.1 A fire main with connected fire hydrants shall be fitted to the PYLC.

.2 The fire main and hydrants shall be so arranged that, if necessary, one (1) length of hose can be used to provide one (1) stream of water to any location on board that is normally accessible to the passengers or crew including any store room or storage compartment.

The fire main and hydrants shall be arranged to avoid being readily damaged.

.3 The fire main and all connections to the hydrants shall have an inner diameter and schedule that is appropriately sized for the maximum discharge rating of the pump(s) connected as specified by the manufacturer.

.4 The fire main and hydrants shall be made of materials that:

(a) are not readily rendered ineffective by heat unless adequately protected; and

(b) do not readily corrode.

.5 The fire main and hydrants shall be so arranged to avoid the possibility of freezing.

.6 Where the second fire pump is fitted in a different location than the primary pump (i.e., outside of the machinery space), isolating valves that separate the section of the fire main within the machinery space containing the primary fire pump(s) from the rest of the fire main shall be fitted so that the secondary pump may feed the fire main separately from any piping positioned within the machinery space.

(a) The isolating valves shall be of a manually operated type fitted in an easily accessible location outside of the machinery space.

(b) If any part of the isolated section of the fire main must pass through the machinery space it shall be insulated to "A-60."

.7 An isolating valve shall be fitted to each hydrant so that any hose may be removed while the fire pumps are in operation without losing pressure.

.8 At a minimum at least two (2) separate hydrants shall be provided in locations where if one (1) is rendered inaccessible the other is likely to remain free of debris, water, fire, or other hindrance.

.9 The fire main shall have no connection(s) or permanent function(s) other than for fire-fighting or anchor wash down.

.10 Where a classed PYLC has a class notation indicating a periodically unattended machinery space or where only one (1) person is required on watch, there shall be the ability to remotely start the fire pumps from the navigating bridge and the fire control station.

If the fire control station is positioned at a location less than two (2) compartments removed or 10 m, whichever is less, from the navigating bridge, the remote start need only be provided at one (1) of the locations.

8.2.3 Fire Hoses and Nozzles

.1 Fire hoses shall be of an Approved Type and be provided with similarly approved nozzles and couplings.

.2 Fire hoses, nozzles, and other associated tools and fittings shall be kept in readily accessible and marked locations close to the hydrants or connections on which they will be used.

.3 In interior spaces, hydrants, nozzles, and any other associated connections necessary for fire-fighting shall be connected and readily accessible at all times.

.4 Fire hoses shall not exceed 18 m in length and the diameter of a lined hose for use with a power-driven pump shall not be less than 45 mm.

.5 Jet or spray nozzles shall have a diameter of 19 mm, 16 mm, or 12 mm depending on fire-fighting purposes and shall have the ability to be opened and closed.

For accommodation and service spaces, the diameter of nozzles need not exceed 12 mm.

.6 Smaller diameter hoses and jet/spray nozzles will be considered as meeting the requirements of this Code as long as they will not negatively impact the fire-fighting ability of the system, as designed.

.7 The number of fire hoses and nozzles provided shall correspond to the specific and unique requirements of the PYLC, but in no case shall there be less than three (3) fire hoses and nozzles on each PYLC.

8.2.4 Portable Fire Extinguishers for Use in the Accommodation and Service Spaces

.1 The number, location, capacity, and fire extinguishing medium type shall be selected in accordance with the specific and unique requirements of the PYLC, but in no case shall there be less than three (3) fire extinguishing mediums on each PYLC.

The fire extinguishers provided shall have, as far as is reasonable and practicable, a uniform method of operation.

.2 Carbon dioxide portable fire extinguishers shall not be located in or provided for use in accommodation spaces.

.3 In locations containing electrical or electronic equipment and/or appliances necessary for the safe operation of the PYLC, fire extinguishers of a medium that is neither electrically conductive nor harmful to the equipment and/or appliances shall be installed.

.4 Fire extinguishers shall be located external to but adjacent to the entrance of the space for which they are intended to be used. Additionally, they shall be in a marked and easily visible location which is easily accessible in an emergency and where damage cannot readily occur.

.5 Spare charges shall be provided on board for 100% of the first four (4) portable fire extinguishers and at least 50% of each type and capacity of the remaining portable fire extinguishers capable of being recharged on board.

.6 When an extinguisher is carried on board that is not able to be recharged when the PYLC is at sea, an additional portable fire extinguisher of the same type (or its equivalent) shall be provided on board.

8.2.5 Fire Extinguishing in Machinery Spaces

.1 Category A machinery spaces containing internal combustion type machinery shall be provided with:

(a) a fixed fire extinguishing system approved in accordance with the FSS Code; and

(b) one (1) portable fire extinguisher for oil fires for each horsepower (75 kW); or

(c) two (2) portable fire extinguishers for oil fires together with:

(i) one (1) foam extinguisher of 45 L capacity; or

(ii) one (1) carbon dioxide portable fire extinguisher of 16 kg capacity.

.2 In a machinery space containing an oil fuel settling tank, oil fuel unit, oil fired boiler, or incinerator, a fixed fire extinguishing system complying with the standards as found in the FSS Code shall be provided.

.3 In addition to that which is specified in §8.2.5.1 above, the number, location, capacity, and fire extinguishing medium type shall be selected in accordance with the specific and unique requirements of the PYLC, but in no case less than two (2) for any individual machinery space containing any part of an oil fuel installation.

.4 Additionally one (1) portable fire extinguisher shall be readily accessible for use in the steering flat.

8.2.6 Additional Fire Appliances

The following additional appliances are required:

(a) two (2) fireman’s outfits including an approved breathing apparatus for each outfit; and

(b) one (1) fire blanket in the galley.

9.0 LIFE-SAVING APPLIANCES

9.1 General Requirements

9.1.1 Life-Saving Appliances

.1 All PYLCs shall be provided with life-saving appliances in accordance with the Life-Saving Appliances listed in Table 21 below:

Table 21: LIFE-SAVING APPLIANCES (see sections of this Chapter as noted below)			
Size of PYLC	**<500 GT**		
Category	**Category 2**	**Category 1**	**Category 0**
Life Rafts (see §9.2.1)	Yes		
Rescue Boat (see §9.2.3)	No	Yes	
Recovery of Persons from the Sea (see §9.2.2)	Yes		
Lifejackets (see §9.2.5)	Yes		
Immersion Suits (see §9.2.6)	Yes		
Life Buoys (Total) (see §9.2.4)	Four (4)		Six (6)
Life Buoys with Light and Smoke; or SOLAS-Approved Strobe (see §9.2.4.4)	Two (2)		
Life Buoys with Buoyant Line (see §9.2.4.3)	Two (2)		
Line Throwing Appliances with Spare Charge(s) (see §9.2.8)	One (1)		
Rocket Parachute Flares (see §9.2.7)	Four (4)		Six (6)
Red Hand Flares (see §9.2.7)	Six (6)		Twelve (12)
Smoke Signals (see §9.2.7)	Two (2)		
Portable VHF	Two (2)		Three (3)
EPIRBs (see §9.2.9)	One (1)		
SARTs (see §9.2.10)	One (1)		Two (2)
General Alarm (see §9.2.11)	Yes		
Posters / Signs / Placards Showing Survival Craft and Equipment Operating Instructions	Yes		
Training Manual (see §19.1)	Yes		
Mini-ISM (see Annex 1)	Yes		
Life-Saving Signals and Rescue Poster (see §9.2.13)	Yes		

.2 All PYLCs shall be provided with an approved life-saving appliances general arrangement plan (normally combined with the fire control general arrangement plan). Symbols used on the plan(s) shall comply with MN 2-011-10.

.3 All equipment fitted shall be of an Approved Type that is in accordance with the MN 2-011-37. Unless expressly provided otherwise, all life-saving appliances shall comply with the LSA Code and IMO Resolution MSC.81(70).

.4 Every inflatable rescue boat, rigid inflatable rescue boat, life raft, and hydrostatic release unit shall be serviced at intervals not exceeding 12 months by an approved service provider. Approved disposable hydrostatic release units which have been approved for a service life of more than one (1) year need not be serviced annually but shall be replaced at the end of their service life in accordance with the manufacturer's recommendations.

.5 All life-saving equipment that may be provided, either mandatorily or voluntarily, must meet the requirements of this §9.1.

When safety equipment is provided for use in supplementary activities, such as water sports, or used for training purposes, arrangements for its stowage and its marking shall ensure that it will not be mistakenly used as approved life-saving equipment in an emergency situation.

.6 All life-saving equipment carried on board shall be fitted with retro-reflective material in accordance with the recommendations found in IMO Resolution A.658(16). Retro-reflective material already fitted on existing life-saving appliances in accordance with IMO Resolution A.274(VIII) will continue to be accepted until it has to be replaced as a result of deterioration or damage.

.7 The stowage and installation of all life-saving appliances is to be to the satisfaction of the Administrator or its representative, as applicable.

.8 All life-saving appliances shall be kept in good condition and be ready for immediate use before any voyage is commenced and at all times during the voyage.

.9 In the case of an emergency that necessitates the safe evacuation of the PYLC, special consideration shall be given, and provisions made as necessary, to avoid interference from dangerous elements, above or below the waterline, such as propellers, impellers, stabilizers, sea chests, bow thrusters, etc.

.10 Means shall be provided to prevent overboard discharge of water into survival craft during abandonment.

.11 Maintenance of life-saving equipment shall be carried out in accordance with the instructions for onboard maintenance. See §19.2 below.

9.1.2 Launching Appliances

.1 Launching appliances shall be in accordance with the LSA Code Chapter VI, unless expressly provided otherwise in this Code.

.2 Any inspection, servicing, or repair of cranes, wires, and associated parts of the launching appliances shall be carried out in accordance with MN 2-011-37 and services developed by the manufacturer.

.3 At intervals not exceeding 12 months, the inspection of cranes, wires, and associated parts of the launching appliances shall be performed by a manufacturer's representative or a person appropriately trained and approved by the PYLC's Classification Society. Records of inspections and routine maintenance carried out by the ship's crew and the applicable certificates for the launching appliances and equipment shall be maintained on board at all times. Repairs and replacement of parts shall be carried out in accordance with the manufacturer's requirements and standards.

9.2 Equipment Carriage Requirements

9.2.1 Life Rafts

.1 Life raft embarkation arrangements shall comply with the following:

(a) A means of embarkation of life rafts must be provided where the distance between the embarkation deck and the top of the life raft buoyancy tube exceeds 1 m when the PYLC is in its lightest condition.

(b) Where the distance between the embarkation deck and the top of the life raft buoyancy tube exceeds 4.5 m when the PYLC is in its lightest condition, davit launched life rafts shall be provided with at least one (1) launching appliance also provided on each side of the PYLC.

(c) A life raft will be considered as being readily transferable if it is able to be carried by two (2) persons.

(d) The readily transferability of life rafts shall be demonstrated to the satisfaction of the Classification Society or AR.

.2 The life rafts carried are to be stowed in Glass Reinforced Plastic (GRP) containers and must contain the necessary SOLAS emergency pack, the contents of which are dependent upon the PYLC's limiting Category:

(a) PYLCs in Category 2 must have life rafts equipped with a SOLAS B Pack; and

(b) PYLCs in Category 1 or 0 must have life rafts equipped with a SOLAS A Pack.

.3 The life rafts carried on board the PYLC shall each be of equal capacity or as near equal as possible.

.4 Life raft approvals include approval of their stowage, launching, and float-free arrangements.

.5 A PYLC shall be provided with life rafts of such number and capacity that, in the event of any one (1) life raft being lost, damaged, or otherwise rendered unusable there remains sufficient capacity for all persons on board.

.6 For a PYLC of less than 85 m in Load Line Length, one (1) or more life rafts are to be provided on each side of the PYLC of sufficient aggregate capacity to accommodate the total number of persons on board. Life rafts are to be readily transferable for launching on either side of the PYLC.

If life rafts are not readily transferable, additional life rafts shall be fitted so that life rafts having a total capacity of 150% of the PYLC's complement are provided on each side of the PYLC.

.7 In lieu of meeting the requirements of §9.2.1.6 above, PYLCs limited to Category 2 may carry a sufficient number of life rafts, so that in the event of any one (1) life raft being lost or rendered unserviceable, sufficient aggregate capacity remains on either side of the PYLC for all persons on board. This may be achieved by transferring life rafts from one side to the other.

.8 For a sailing PYLC, when it is impractical to stow the life rafts required by §9.2.1.6 above at the PYLC's side, alternative arrangements may be accepted to provide life rafts having a capacity of 150% of the PYLC's complement stowed on the centerline, subject to their being readily transferable to either side of the PYLC.

9.2.2 Recovery of Persons from the Sea

.1 Means shall be provided for the recovery of a person from the sea to the PYLC. If a person is unconscious or unable to assist in the rescue, means shall be provided to recover them. This may be satisfied by an inflatable boat or rescue boat provided with a suitable davit should it not be possible for the PYLC itself to be used to recover persons from the sea.

.2 All PYLCs shall have PYLC-specific plans and procedures for the recovery of persons from the water. The plans shall identify the equipment intended to be used for recovery purposes and measures to be taken to minimize the risk to shipboard personnel involved in recovery operations, in accordance with MN 2-011-47.

.3 The means of recovery shall be demonstrated to the satisfaction of the Administrator or its representative, as requested.

.4 If an over side boarding ladder or scrambling net is provided to assist in the recovery of an unconscious person from the water, the ladder or net shall extend from the weather deck to at least 600 mm below the lowest operational waterline.

9.2.3 Rescue Boats

.1 All rescue boats and associated equipment covered in this section shall comply with the LSA Code Chapter V/5.1.

.2 Launching of a rescue boat shall always be designed so as to allow it to be launched from a sheer vertical side of the PYLC as far as is practical and in an area free of impedances or hazards. The rescue boat need only be able to be launched from one side of the PYLC.

.3 If the rescue boat is stowed forward, the launching appliances shall be entirely located in a position aft of the vertical extension of the aft most portion of the collision bulkhead.

.4 The requirements of §9.2.2 above shall also be followed.

.5 PYLCs of Category 0 or 1:

(a) A rescue boat meeting SOLAS requirements shall be provided; however, it may be white in color.

(b) The acceptance of an approved rescue boat is conditional upon the provision of suitable stowage and launching arrangements. The launching arrangements shall be of an Approved Type and/or acceptable to the Administrator. When a power-operated crane is used as a launching device, it shall be capable of operation by hand in the event of a power failure. A secondary power source, e.g., emergency generator power, battery, or hydraulic pump, is acceptable in lieu of emergency hand operation of the rescue boat crane.

(c) An inflatable or rigid inflatable rescue boat may be accepted; however, it must be in a fully inflated condition at all times.

.6 For PYLCs of Category 2, if a rescue boat complying with §9.2.3.1 to §9.2.3.5 above is not carried on board, alternative arrangements may be considered to the satisfaction of the Classification Society or AR, including:

(a) a rescue boat of a SOLAS Approved Type which is towed by the main PYLC; or

(b) a rescue boat which is stowed in the lazarette or garage, provided that it can be launched in a reasonable time frame, and there is the ability to efficiently use the PYLC itself to recover an unconscious person from the water; or

(c) a boat that is suitable for rescue purposes carried on board but which is of a non-SOLAS Approved Type. In this case, the boat shall have a capacity for not less than four (4) persons and may be a rigid, rigid inflatable, or inflatable tender and be capable of displaying a highly visible color. Tubes of non-SOLAS inflatable boats shall have a minimum of three (3) buoyancy compartments built in; or

(d) if it can be demonstrated that by virtue of the PYLCs maneuverability it can effectively act as the rescue boat itself. In this case, the marked area shall be fully visible from the bridge wings or other areas where the PYLC may be operated. However, consideration shall be given to §9.2.2 above.

.7 There shall be no requirement to recover the rescue boat if the casualty can be recovered on board from the rescue boat while it is still in the water.

.8 Launching appliances shall be in accordance with §9.1.2 above.

9.2.4 Life Buoys

.1 Life buoys shall be provided on the port and starboard sides of the bridge. They shall be equipped with self-activating light and smoke signals and shall be capable of quick release. Where this is impractical, they may be stowed at the side of the PYLC and provided with conventional release arrangements.

.2 Life buoys shall meet SOLAS requirements; however, they may be white in color.

.3 A buoyant line is required to be attached to two (2) of the life buoys and is to have a minimum length of 30 m. Reference should be made to Table 21 and §9.1.1 above.

.4 For Category 2 PYLCs, the Light and Smoke MOB signal may be replaced by a SOLAS approved marker strobe light.

.5 Each life buoy shall be marked with the PYLC's name and Port of Registry.

9.2.5 Lifejackets

.1 One (1) adult SOLAS approved lifejacket shall be provided for each person on board plus spare adult lifejackets sufficient for at least 10% of the total number of persons on board, or two (2), whichever is the greater. Each lifejacket shall be fitted with a light and whistle.

.2 There shall be at least two (2) SOLAS approved inflatable lifejackets included in the number of lifejackets for use of the crew of any rescue boat or inflatable boat carried on board described in §9.2.5.1 above.

.3 In addition to the adult lifejackets, a sufficient number of infant and children's lifejackets shall be provided for children carried on the PYLC.

.4 Sufficient means of securing lifejackets to persons weighing up to 140 kg and a chest girth of up to 1,750 mm shall be provided as necessary.

9.2.6 Immersion Suits

.1 One (1) approved immersion suit complying with the requirements of §9.1.1 above shall be provided for each person on board.

.2 A yacht which operates between latitude of 30° North and 30° South need not be provided with immersions suits or exempted in accordance with Chapter I, §2.4.2.

.3 A PYLC which operates outside of the parallels of latitude 30°N and 30°S or in areas where the seawater temperature at the time of operation is known and considered to be high enough to forego the safety provision of immersion suits, shall apply to the Administrator for a dispensation or exemption from the requirements. Full details of the proposed location, period of operation, and established temperature data from recognized authorities shall be provided. Immersion suits shall always be provided for the rescue boat crew and for the crew on repositioning voyages (see Chapter I, §2.4.2).

.4 A PYLC provided with a rescue boat shall be equipped with immersion suits for all persons carried in the rescue boat (see §9.2.3 above).

.5 If applicable, immersion suits shall be provided for persons weighing up to 140 kg or with chest girths of 1,750 mm and for children.

.6 The periodic testing of immersion suits shall be conducted according to IMO Circular MSC/Circ.1114. Suits less than 10 years old shall be tested at intervals not exceeding three (3) years; suits older than 10 years may be required to be tested more frequently. Immersion suit air tests may be carried out by the PYLC's crew if manufacturer's equipment is available. In such case, the test shall be attested to in writing by the Master or his/her representative. Any necessary repairs shall be conducted by an approved service provider in accordance with the manufacturer's recommendations.

9.2.7 Pyrotechnics

Flares, complying with the requirements of Chapter III of the LSA Code, shall be positioned in a readily accessible location and in the quantities stated in Table 21 in §9.1.1 above.

9.2.8 Line Throwing Appliances

For PYLCs in Category 2, appliances capable of firing two (2) shots of line are required, for all other categories four (4) shots of line capability is required.

9.2.9 Emergency Position-Indicating Radio Beacon (EPIRB)

.1 A 406 MHz EPIRB shall be provided and installed in a readily accessible location ready to be manually released, capable of being placed in a survival craft, or floating free if the PYLC sinks. See MN 4-033-5.

.2 All EPIRBs are to be registered with the Administrator and are to be tested and serviced annually by an approved service provider.

9.2.10 Search and Rescue Transponder (SART)

The SART is to be stowed in an easily accessible position so that it can be rapidly placed in any survival craft. Means are to be provided in order that it can be mounted in the survival craft at a height of at least 1 m above sea level.

9.2.11 General Alarm

The general alarm may consist of the PYLC's whistle or siren.

9.2.12 Lighting

.1 Alleyways, internal and external stairways, and exits giving access to the muster and embarkation stations shall be adequately lighted.

.2 Adequate lighting is to be provided in the vicinity of survival craft, launching appliance(s) (when provided), and the area overboard in way of the launching position(s). The lighting shall be supplied from the emergency source of power.

9.2.13 Life-Saving Signals and Rescue Poster

When display space in the wheelhouse is restricted, the two (2) sides of a SOLAS No. 2 poster (as contained in life raft equipment packs) may be displayed in lieu of a SOLAS No. 1 poster. Symbols used shall conform to MN 2-011-10.

10.0 NAVIGATIONAL LIGHTS, SHAPES, AND SOUND SIGNALS

10.1 General

.1 PYLCs shall comply with the requirements of COLREGS '72.

.2 Navigation lights shall have a primary and secondary means of power.

.3 The requirement for duplication of navigation lights may be satisfied by having a spare lamp that can be fitted within three (3) minutes while underway.

.4 The use of approved LED lights shall be to the satisfaction of the Administrator.

11.0 NAVIGATIONAL AND BRIDGE EQUIPMENT AND BRIDGE VISIBILITY

11.1 Requirements

All PYLCs shall be provided with the equipment listed in Table 22, as applicable:

Table 22 (see sections of this Chapter as noted below)			
Navigational Equipment	**Yachts up to 149 GT**	**Yachts from 150 GT to 299 GT**	**Yachts from 300 GT to 499 GT**
Standard Magnetic Compass (see §11.2.1)	✓	✓	✓
Spare Magnetic Compass (see §11.2.1b)		✓	✓
Global Positioning System (GPS) (see §11.2.2)	✓	✓	✓
Automatic Identification System (AIS) (see §11.2.3)			✓
Long-Range Identification and Tracking (LRIT) System (see §11.2.4)			✓
9 GHz Radar (see §11.2.5)			✓
Radar Reflector (see §11.2.12)	✓		
Pelorus or Compass Bearing Device (see §11.2.1c)	✓	✓	✓
Echo Sounder (see §11.2.8)			✓
Speed and Distance Measuring Device (see §11.2.7)			✓
Barometer (see §11.2.11)	✓	✓	✓
Anemometer and Inclinometer (Sailing Yachts Only) (see §11.2.11)	✓	✓	✓
Signaling Lamp / Handheld Searchlight (see §11.2.9)	✓	✓	✓
Searchlight (see §11.2.9 and §11.2.10)	✓	✓	✓

Please refer to SOLAS regulation V/19 for additional details.

11.2 Navigational Equipment Requirements

11.2.1 Standard Magnetic Compass

.1 Every PYLC shall be fitted with an efficient and approved magnetic compass complying with the following requirements, as appropriate:

(a) on a steel PYLC it shall be possible to correct the compass for coefficients B, C, and D;

(b) the magnetic compass or a repeater shall be so positioned as to be clearly readable by the helmsman at the main steering position. It shall also be provided with an electric light, the electric power supply is to be a twin wire type;

(c) means shall be provided for taking bearings as near as practical over an arc of the horizon of 360°. This requirement may be met by the fitting of a Pelorus or, on a PYLC other than a steel PYLC, a handheld compass; and

(d) the compass shall be calibrated and a deviation log kept in accordance with MN 2-011-32.

.2 A spare magnetic compass interchangeable with the standard magnetic compass shall be provided on all PYLCs of 150 GT and above.

.3 If the PYLC is intended to operate in polar regions (north of 70°N or south of 70°S), the effects on the magnetic compass shall be taken into consideration.

11.2.2 Global Positioning System (GPS)

Every PYLC shall carry a GPS which is accurately integrated with other equipment.

11.2.3 Automatic Identification System (AIS)

.1 AIS Class-A

All PYLCs of 300 GT and over shall be fitted with an approved AIS in accordance with SOLAS regulation V/19.2.4. Please refer to MN 2-011-17.

.2 AIS Class-B

(a) PYLCs that have a permanent tow (such as a tender) and wish to have a dedicated Maritime Mobile Service Identity (MMSI) number programmed in the Class-B AIS of the tender, shall apply to the Administrator to obtain a permanent MMSI number which will be categorized under a "Daughter Craft" MMSI number.

(b) The "Daughter Craft" MMSI number will be declared on the Radio License of the PYLC as a permanent identification of the tow. The Administrator must be notified of any changes/alterations made to the "Daughter Craft" in terms of additional radio installation or if the PYLC ceases to tow the tender.

11.2.4 Long-Range Identification and Tracking (LRIT) System

PYLCs of 300 GT and over shall be capable of complying with the requirements of LRIT in accordance with SOLAS regulation V/19-1. Please refer to MN 2-011-25.

PYLCs limited to Category 2 need not be fitted with an LRIT.

11.2.5 9 GHz Radar

All PYLCs of 300 GT and above shall carry an approved 9 GHz radar.

11.2.6 Nautical Charts and Nautical Publications or Electronic Chart Display and Information System (ECDIS)

Every PYLC shall carry nautical charts and nautical publications to plan and display the PYLC's route for the intended voyage and to plot and monitor positions throughout the voyage. An approved ECDIS may also be accepted as meeting the chart carriage requirements provided that the provisions of MN 7-041-6 are in place.

11.2.7 Speed and Distance Measuring Device

All PYLCs of 300 GT and above shall carry a speed and distance measuring device, or other means, to indicate speed and distance through the water.

11.2.8 Echo Sounder

All PYLCs of 300 GT and above shall carry an echo sounding device to measure and display the available depth of water.

11.2.9 Signaling Lamp

Every PYLC shall carry an approved signaling lamp and/or handheld searchlight that is not solely dependent on the PYLC's main source of electrical power.

11.2.10 Searchlight

Every PYLC shall carry an efficient fixed or portable searchlight suitable for MOB search and rescue operations. This may be the approved signaling lamp required by §11.2.9 above.

11.2.11 Instruments

Every PYLC shall carry a barometer. Every sailing PYLC shall carry an anemometer and an inclinometer.

11.2.12 Radar Reflector

On PYLCs less than 150 GT, if practicable, a radar reflector, or other means, to enable detection by ships navigating by radar at both 9 and 3 GHz shall be carried.

11.3 Bridge Navigational Watch Alarm System (BNWAS)

PYLCs assigned Category 0 or 1 may be required to be fitted with a BNWAS. Please refer to MN 2-011-40 for full details.

11.4 Bridge Visibility

.1 PYLCs of 55 m or more in length shall comply with SOLAS regulation V/22. Alternative arrangements may be considered by the Administrator or its representative. PYLCs of less than 55 m in length should comply as far as is reasonable and practicable to do so.

.2 Windows to the conning position(s) shall not be of either polarized or tinted glass (also see §4.6.5 above). Portable tinted screens may be provided for selected windows.

.3 Windows which are not inclined from the vertical plane top out in accordance with SOLAS regulation V/22, shall have appropriate measures to avoid adverse reflections from within to the satisfaction of the Administrator or its representative.

12.0 RADIO

12.1 General

.1 All PYLCs, regardless of GT, shall comply with SOLAS Chapter IV, as amended by the Code.

.2 For PYLCs less than 300 GT, alternative arrangements for the radio installations shall be considered by the Administrator's Radio Service Area on a case-by-case basis.

12.2 Sources of Energy

All PYLCs regardless of GT shall comply with SOLAS regulation IV/13, as amended by this section.

PYLCs of less than 300 GT not meeting the requirements of SOLAS regulation II-1/43 shall have sufficient reserve power supply to operate the radio equipment for a minimum of three (3) hours.

12.3 Watches

While at sea, a PYLC shall maintain a continuous watch in accordance with SOLAS regulation IV/12.

12.4 Radio Personnel

A PYLC shall carry at least one (1) person qualified for distress and safety radio communication purposes. This person shall hold a Certificate of Competence (CoC) issued or endorsed by the Administrator. Refer to the RMI Requirements for Seafarer Certification (MI-118).

12.5 Global Maritime Distress and Safety System (GMDSS) Log Books

All PYLCs are required to keep records of communications relating to distress, urgency, and safety traffic. Records of important incidents connected with the radio service, regular positions of the PYLC, and results of tests carried out on the radio equipment. Records must be stored on board and be available for inspection as required.

13.0 PUBLICATIONS

PYLCs shall carry the most up-to-date and applicable version[7] of the below Table 23 list of publications, based on the tonnage of the PYLC as indicated. Please note these requirements represent the minimum in terms of compliance. Refer to MN 1-000-3.

[7] Please note, in determining what version is applicable, a number of factors need to be taken into account, including but not limited to the date that the keel of the yacht was laid.

Table 23			
Publication	**Yachts up to 299 GT**	**Yachts from 300 GT up to 399 GT**	**Yachts from 400 GT up to 499 GT**
COLREGS	✓	✓	✓
IAMSAR Vol. III	✓	✓	✓
Code of Signals	✓	✓	✓
ILLC	Recommended	Recommended	Recommended
ICS	✓	✓	✓
ISPS	-	Recommended	Recommended
MARPOL*	-	-	✓
MI-103	✓	✓	✓
MI-300	✓	✓	✓
NAUTAL	✓	✓	✓
NAUTCH-P	✓	✓	✓
NAUTCH-E	✓	✓	✓
SAILING DIRECTIONS-E	✓	✓	✓
SAILING DIRECTIONS-P	✓	✓	✓
TIDE TABLES-P	✓	✓	✓
TIDE TABLES-E	✓	✓	✓
LIGHT LIST-P	✓	✓	✓
LIGHT LIST-E	✓	✓	✓
NTVRP	-	-	✓
SOLAS	-	✓	✓
STCW	✓	✓	✓
STMAN	✓	✓	✓

* PYLCs of 400 GT and greater and all PYLCs that are certified to carry more than 15 persons, shall carry a copy of MARPOL.

Acronym Guide:

COLREGS	Convention on the International Regulations for Preventing Collisions at Sea
IAMSAR	International Aeronautical and Maritime Search and Rescue Manual
ILLC	International Convention on Load Lines
ICS	International Code of Signals
ISPS	International Ship and Port Facility Security Code
MARPOL	International Convention for the Prevention of Pollution from Ships
MI-103	RMI Yacht Code

MI-300	RMI Combined Publication Folder
NAUTAL	Nautical Almanac
NAUTCH-E	Nautical Charts – Electronic
NAUTCH-P	Nautical Charts – Paper
NTVRP	Nontank Vessel Response Plan (when in US waters only)
SOLAS	International Convention for the Safety of Life at Sea
STCW	International Convention on Standards of Training, Certification and Watchkeeping
STMAN	Safety and Training Manual (SOLAS Training Manual)

14.0 DECK EQUIPMENT FOR PYLCs OF 300 GT AND ABOVE

14.1 Equipment

PYLCs will be considered to have adequate deck equipment on board if such equipment is approved and installed in accordance with the Rules of Class and complies with the requirements of this Code.

14.2 Anchors

A minimum of two (2) anchors are required on all PYLCs, one of which shall be rigged and ready for use at all times. The deployment system shall be able to be fully operational when there is a power failure.

14.3 Sailing PYLCs

.1 The sizing of anchors and cables for sailing PYLCs shall take into account the additional windage effect of the masts and rigging.

.2 For square rigged sailing PYLCs, the guidance on the approximate increase in anchor mass and cable strength required is as follows:

(a) for PYLCs of less than 50 m in Load Line Length, typically 50% above the requirements for a typical motor PYLC having the same total longitudinal profile area of hull and superstructure as the sailing PYLC under consideration; and

(b) for square rigged sailing PYLCs of 50 m and more but less than 100 m in Load Line Length, the increase should be obtained by linear interpolation.

14.4 Towing Arrangements

Accessible, efficient, strong securing points shall be provided for the attachment of towlines for the PYLC to tow and be towed, fore and aft, respectively.

15.0 MEDICAL STORES

15.1 General

.1 All PYLCs shall carry medical stores as outlined by MN 7-042-1, as applicable, which provides details of medicines and medical stores to be carried or their suitable equivalent.

.2 Medical training requirements for the crew of the PYLC are provided in the *RMI Requirements for Seafarer Certification* (MI-118).

16.0 PYLC-SHORE TRANSFER

16.1 Tenders

.1 A tender shall be fit for its intended use.

.2 A lifeboat or rescue boat may be utilized as a tender, provided that the craft, equipment, and its launching appliances are certified and in compliance with the LSA Code.

.3 Safety equipment shall be provided on each tender as appropriate to its intended range and areas of operation. Such safety equipment shall include, but not be limited to, appropriately sized lifejackets for each person on board the tender, appropriate radio communications, a portable fire extinguisher, and a mechanical or portable foghorn or claxon.

.4 The tender itself shall be clearly marked with the number of persons that it can safely carry, and the name of the mother yacht.

.5 In the case of crafts with gasoline powered engines, the safety requirements for the carriage of gasoline outlined in §6.1 above shall be met.

.6 An official TSC confirming an equivalence of safety shall be issued by an AR. This statement has a validity of five (5) years, subject to required annual surveys being satisfactorily held.

.7 It is the responsibility of the Master to ensure that the operations of any water craft belonging to the mother yacht of any type are in compliance with the rules and regulations imposed by the local port authorities for the area of operation, including any training as required.

16.2 Pilot Transfer Arrangements for PYLCs

.1 PYLCs engaged on voyages in the course of which pilots may be employed shall be provided with pilot transfer arrangements. These arrangements shall have due regard for the international standards of safe practice for the boarding and landing of pilots in accordance with SOLAS regulation V/23.

.2 Periodic inspections and tests to confirm proper construction, installation, operation, and maintenance of equipment for the boarding arrangements of pilots shall be carried out in accordance with MN 7-041-3.

17.0 HELICOPTER AND LANDING FACILITIES

All PYLCs, where helicopter operations to and from the PYLC are performed, shall comply with the applicable rules and regulations in accordance with Annex 4 of this Code.

18.0 SUBMERSIBLES

18.1 General Requirements

.1 All submersibles to be installed on a PYLC shall be designed and built in accordance with the Rules of Class and maintained in Class.

.2 When installing a submersible, special consideration shall be given to the stability and structure of the PYLC.

18.2 Lifting Appliances and Attachments

.1 The design and construction of the lifting appliance(s) and their attachment to the structure of the PYLC and the associated stowage of the submersible shall be in accordance with the Rules of Class or certified as suitable for their intended use.

.2 Lifting appliances and associated equipment shall be maintained and tested in accordance with the LSA Code Chapter VI/6.1.2.

18.3 Operation

.1 The safe operation of the submersible is the responsibility of the Master.

.2 The Master shall ensure that the operator of the submersible has had the proper training and is certified to operate the submersible.

.3 An operations manual shall be available on board the PYLC. The manual shall contain, as a minimum, the lowering and recovery procedures, fire-fighting and safety procedures, and drills.

19.0 SAFE WORKING PRACTICES

19.1 Training Manual

.1 The PYLC's training manual shall include details of established safe working practices specific to the PYLC, as well as guidance on:

(a) training for members of the crew;

(b) personal clothing and protection from injury;

(c) health and safety awareness;

(d) prevention of pollution; and

(e) life-saving appliances and fire-fighting equipment.

.2 The training manual shall be yacht type specific and contain instructions for the actual equipment brands/types on board. The information in regards to the life-saving appliances and fire-fighting equipment provided on the PYLC and the best methods of survival shall be explained in easily understood terms and illustrations, where appropriate (reference should be made to SOLAS regulation III/35, and SOLAS regulation II-2/15).

.3 The training manual shall be written in the working language of the PYLC and in English.

.4 The Master shall conduct drills and/or trainings for the crew. Refer to RMI Maritime Regulations (MI-108), regulation 7.41, as applicable. The drills and/or trainings shall also be documented in the SMS manual.

19.2 Instructions for On Board Maintenance

Instructions shall be provided describing the maintenance procedures for all safety and fire-fighting appliances in easily understood terms and illustrated wherever possible. Reference shall be made to MNs 2-011-37 and 2-011-14.

19.3 Safety Management System

A simplified ISM system, a "Mini-ISM," is required to be implemented in accordance with Annex 1 of this Code. The Mini-ISM shall be to the satisfaction of the Administrator or its representative.

20.0 PASSENGERS

20.1 Limitations

.1 PYLCs shall carry no more than 12 passengers regardless of the number of beds or berths provided. PYLCs that wish to carry more than 12 passengers will be considered PAXYs and, as such, must meet the requirements of Chapter III of this Code.

.2 PYLCs may apply to the Administrator for a temporary dispensation to carry more passengers, on an excursion of very limited duration and range, during which no additional passenger would be berthed on board for an overnight passage. In order to apply for such a dispensation, the owner or Master may request an application form from the Administrator.

21.0 MANNING

21.1 Minimum Safe Manning

Please refer to MN 7-038-2 for the minimum safe manning requirements.

21.2 Crew Certification

For information on crew certification in the RMI, please refer to the *RMI Requirements for Seafarer Certification* (MI-118), §7.0.

CHAPTER V:

YACHTS ENGAGED IN TRADE (YETs)

1.0 STATUTORY AND NATIONAL REQUIREMENTS

1.1 All YETs shall comply with the requirements outlined in this Chapter V and Chapter II of this Code as well as the applicable requirements of Chapter I of this Code and all other applicable RMI laws and regulations.

1.2 Please refer to RMI Yacht Compliance Requirements (MI-103A) for a comprehensive matrix of statutory and national requirements for all YETs.

2.0 MARINE GUIDELINES

Please refer to *Yacht Engaged in Trade* (MG 1-11-2) which delineates the processes to be followed for a private yacht flagged in the RMI to obtain a YET Compliance Certificate and a Temporary COR for YET authorizing the yacht to charter for up to 84 days per calendar year in certain European Union (EU) waters.

ANNEXES

ANNEX 1 – MINI-SAFETY MANAGEMENT SYSTEM FOR YACHTS OF LESS THAN 500 GT

1.0 Introduction

.1 The purpose of this Annex is to provide the requirements for the development and implementation of an effective simplified management system (Mini-ISM) for yachts of less than 500 GT, where full certification to the International Safety Management (ISM) Code and the International Ship and Port Facility Security (ISPS) Code is not a requirement.

.2 The objectives of the Annex are to ensure safety at sea, prevention of human injury or loss of life, avoidance of damage to the environment, and security of people and property.

2.0 General

Each yacht's Mini-ISM shall include the following:

.1 Health, Safety, Security, and Environmental Protection Policy.

This must address the issues of health, safety, security, and the environment as they affect the ISM Code Company (the "Company") and its staff, both ashore and afloat. The objectives of the Company should be:

(a) to provide for safe practices in yacht operation and a safe working environment;

(b) to establish safeguards against all identified risks; and

(c) to continuously improve management skills of personnel ashore and on board yachts, including preparing for emergencies related both to health, safety, security, and environmental protection.

.2 Procedures to ensure safe operation of yachts in compliance with the regulations and rules.

(a) The management system shall ensure:

(i) compliance with mandatory rules and regulations; and

(ii) that applicable codes, guidelines, and standards recommended or required by the IMO, Administrator, Classification Societies, and maritime industry organizations are taken into account.

(b) The Company shall establish procedures to ensure that safe working practices are carried out in the operation of the yacht. These may be in the form of checklists which can be followed by all personnel ashore and on board.

(c) For some yachts, it may be appropriate to have permanently exhibited checklists, e.g., in the wheelhouse for navigational items. Alternatively, in a smaller yacht, the record could take any suitable form, such as a diary as distinct from a specially printed logbook.

(d) Electronic recordkeeping for the purpose of the ISM is acceptable. The system must be approved by the Administrator prior to its use (reference Annex 2 of this Code).

.3 Effective lines of communication between personnel, ashore and on board.

Responsibility and authority of each employee should be clear. This may be best illustrated in a simple diagram, showing the hierarchy on board and ashore.

.4 Procedures for reporting accidents and incidents.

The requirement for reporting accidents should be well understood by all personnel and in so doing improve the safety and security culture practiced on board. Reference *Piracy, Armed Robbery, and the Use of Armed Security* (MN 2-011-39) and *Notification and Reporting of Marine Casualties, Marine Incidents, Occurrences and Offenses* (MG 6-36-2).

.5 Procedures for responding to emergency situations.

(a) There shall be clearly stated procedures for responding to emergency situations. These may include but not be limited to:

(i) fire;

(ii) collision;

(iii) grounding;

(iv) security / violent act;

(v) main propulsion or steering failure; and

(vi) MOB.

(b) Checklists may be useful in this regard.

3.0 Health, Safety, Security, and Environmental Protection Policy

.1 One (1) or more competent persons shall be delegated to take responsibility for health, safety, security, and environmental protection. That person or persons shall be clearly identified. It is the responsibility of the owner/operator to ensure that the policy is complied with and that the responsibilities are understood.

.2 The Company/owner shall develop a policy on prevention of alcohol and drug abuse.

.3 All personnel both ashore and on board have a duty to exercise due diligence with regard to themselves and other persons who may be affected by their acts or omissions.

.4 It is essential that, in the event of an emergency, there is the ability to communicate with the emergency services via a shore base. The shore base may be the Company office ashore, the local port authorities, police or fire department, or another office as may be agreed between the yacht and the shore base.

4.0 Responsibilities and Authority

The Master must have authority at all times to make decisions with regard to the safety and security of the yacht and the persons on board. To ensure that there is no ambiguity regarding the authority of the Master, there shall be a simple written statement to this effect. It should emphasize the Master's overriding authority and the responsibility to make decisions with respect to health, safety, security, and pollution prevention, and to request assistance as may be necessary.

5.0 Resources, Personnel, and Training

.1 All personnel shall receive training appropriate to the tasks they are assigned and undertake. It is the responsibility of the Company/owner to ensure that this training is given and that the personnel have an understanding of the relevant regulations and rules.

.2 As a minimum, this means:

(a) for the Master, the relevant qualifications; and

(b) for the crew, relevant qualifications and any additional training appropriate to their designated duties.

.3 Prior to the first occasion of working on the yacht, each employee must receive appropriate familiarization training and proper instruction in onboard procedures. This could include, but not necessarily be limited to:

(a) mooring and unmooring;

(b) launching and recovery of survival craft;

(c) evacuation from all areas of the yacht;

(d) donning of lifejackets;

(e) use and handling of fire-fighting equipment; and

(f) security prevention / response.

6.0 Onboard Procedures

Simple procedures shall be developed for the operation of the yacht. These should include, but not be limited to:

(a) testing of equipment, including main steering gear, prior to commencing a voyage;

(b) navigation and handling of the yacht;

(c) maintenance routines;

(d) bunkering operations;

(e) watertight / weather-tight integrity;

(f) stability of the yacht;

(g) conduct of passengers and crew while on board; and

(h) security of the yacht.

7.0 Emergency Preparedness

.1 All emergencies likely to be encountered by the yacht should be considered. Drills, as per the RMI Maritime Regulations (MI-108), shall be carried out in the preparation for such emergencies and possible evacuation of the yacht.

.2 Where possible, all personnel should be involved in these drills, both ashore and on board.

.3 The roles and responsibilities of all personnel in an emergency situation shall be defined.

.4 The drills shall be recorded. The names of those who participated shall also be documented.

8.0 Reporting of Accidents

Yachts operating under the Code are required to report any accidents to the Administrator and the Company must therefore have a procedure in place for submitting such reports. Additionally, all accidents and near accidents shall be recorded and reported to the operator/owner, who shall implement corrective and preventive action.

9.0 Maintenance of the Yacht and Its Equipment

.1 Maintenance of the yacht and its equipment is an essential ingredient of safety and security management. The equipment shall be checked and tested daily when in use, in addition to the tests referred to in §6.0 of this Annex 1.

.2 There should be procedures for a more detailed inspection and maintenance program of the yacht and its equipment.

.3 The frequency of the inspections should be determined by the owner/operator, but every event should be recorded, as applicable.

.4 A checklist could be employed as an aide for the inspection of equipment.

10.0 Compliance Verification, Review, and Evaluation

.1 During initial compliance verification the Mini-ISM system and documents are subject to review by a Classification Society or AR.

.2 During the annual and renewal compliance verifications the proper implementation of the SMS requirements shall be reviewed by the AR.

.3 Every Company/owner shall undertake a review of the SMS on board at intervals not exceeding 12 months to verify whether safety and pollution prevention activities comply with the SMS.

.4 In exceptional circumstances, upon approval from the Administrator, this interval may be exceeded by not more than three (3) months.

.5 The results of the reviews should be brought to the attention of all personnel having responsibility in the area involved.

.6 The date and results of the review shall be recorded on board in the appropriate log of the Mini-ISM document.

ANNEX 2 – ELECTRONIC RECORDKEEPING

1.0 General

.1 This Annex describes the use and approval of electronic recordkeeping on board yachts.

.2 The Administrator has recognized the limited storage space on board yachts with regards to the filing and maintaining of hardcopy records. Therefore, the Administrator has approved the use of electronic recordkeeping for ISM related documents.

.3 However, systems used for the documenting and filing of yacht related operational procedures within the scope of the ISM requirements are subject to approval by the Administrator. Once a specific ISM system is approved by the Administrator, it may be used on all RMI registered yachts.

2.0 Requirements

.1 Approved systems must comply, to a minimum, with the following:

(a) the system shall contain all the required documents as laid out in the Company's ISM structure in full;

(b) the system shall be developed in such a way that, if it contains the official ISM manual and guidelines of the managing company, it is available for all crew members to read. However, it is strongly recommended to also supply a soft copy of this manual on board;

(c) each document must be able to be electronically signed with a signature by the responsible crew member;

(d) the documents must be proven to be available for review and investigation purposes by any inspecting body;

(e) the system must be designed as such that documents can be printed out on hardcopy at any time without interfering with any inspections or investigations;

(f) the system must be designed as such that entries cannot be erased, deleted, changed, or in any other way manipulated once a signature of the responsible crew member has been entered;

(g) the template documents and ISM procedures shall be "company controlled" and may not be changed by any of the crew members on board without permission from the responsible person in charge of the ISM management;

(h) taking electronic errors and system failures into account, the yacht shall carry at least one (1) hardcopy of a template form on board which is readily available for use if a system failure of any kind occurs;

(i) an independent backup storage system shall be provided ashore in such a way that in the event of a system failure full recovery of all documents is possible;

(j) the system must be of such design that each completed form can be electronically submitted to the managing company at the earliest opportunity but no later than 24 hours after completing the form;

(k) a printed hardcopy of each completed form and the Company's ISM guideline must be available at all times at the shore based management company and, when there is the intention to change management or owner, made available for the new owner / management, where appropriate;

(l) a copy of the approval statement from the Administrator must be maintained on board at all times; and

(m) the system shall not be developed for official log book keeping. Deck logbooks, oil record books, etc., are to be maintained in hardcopy on board or otherwise as required by the Maritime Regulations (MI-108), §7.41.

.2 The system is subject to be initially and annually reviewed by the Administrator or its representative.

.3 The Administrator will maintain a list of approved systems.

ANNEX 3 – SIMPLIFIED TONNAGE MEASUREMENT METHOD

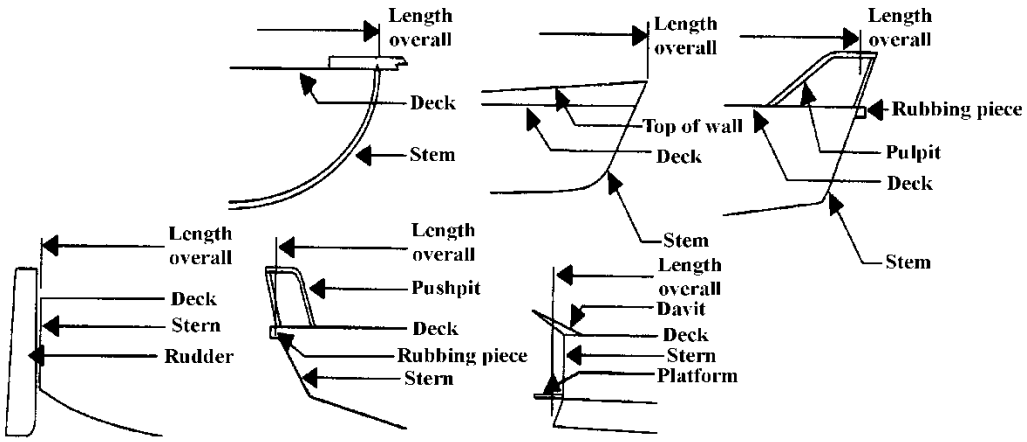
A simplified method of measurement may be used, if necessary, for private yachts that are not required to and do not have their tonnage calculated in accordance with the International Convention on Tonnage Measurement of Ships, 1969 (ITC).

1.0 Applicability

This simplified tonnage assignment criterion is applicable to monohull and multihull yachts **under 24 m in Load Line Length** of normal proportions and form. An AR should perform the admeasurement and issue a National Tonnage Certificate.

2.0 Definitions – *for the purpose of this simplified measurement scheme only*

.1 **Length (L)** – Distance in meters measured along the main deck at the centerline of the yacht from the fore side of the hull to the aft side of the transom. Bowsprits, stern mounted diving platforms, and other appendages that do not contribute to the volume of the yacht are not to be included in this measurement.



.2 **Breadth (B)** – Maximum width of the yacht, excluding rub rails and deck caps, measured in meters from the outside of the hull on one (1) side to the outside of the hull on the other side of the yacht.

.3 **Depth (D)** – Maximum depth of the yacht measured in meters vertically from the top of the deck at the side to the underside of the hull where it meets the keel or to the point where the projected line of the bottom intersects the yacht's centerline.

.4 **Volume** – The product of length, breadth, and depth.

3.0 Measurements

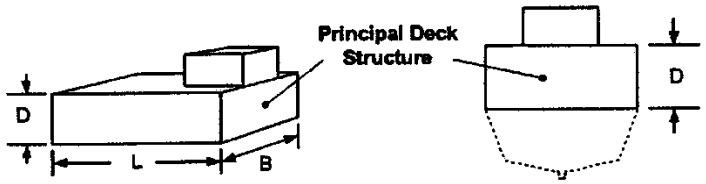
.1 All lengths and depths must be measured in a vertical plane at centerline and breadths must be measured in a line at right angles to that plane. All dimensions must be expressed in meters.

.2 For multihull yachts, each hull must be measured separately for overall length, breadth, and depth and the yacht as a whole must be measured.

4.0 Deck Structures

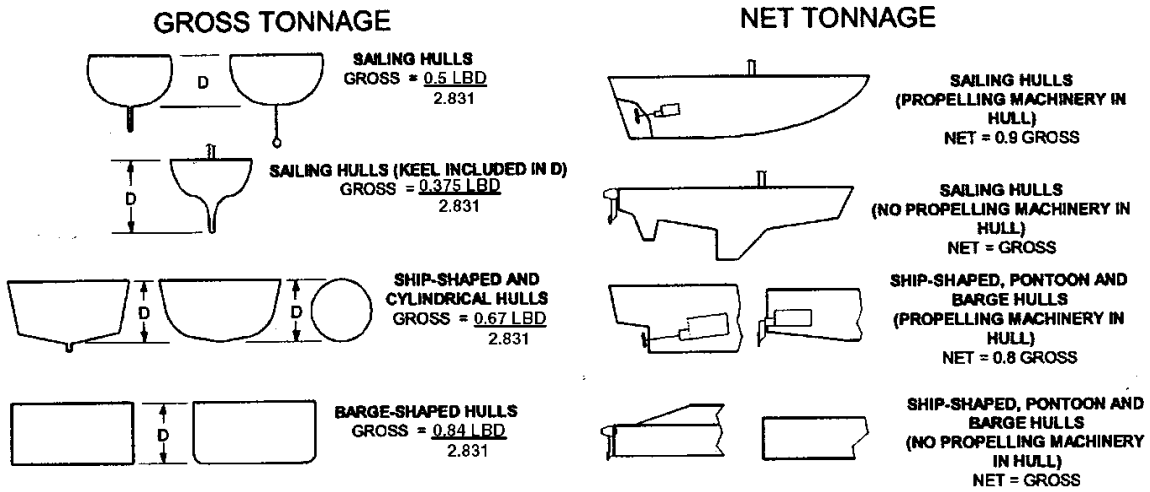
.1 For most yachts, the formulas listed below account for the volumes of deck structures such as cabins and deckhouses. However, if deck structures are excessive in size, the GT is calculated by adding the principal deck structure tonnage to the GT of the yacht's hull(s).

.2 Deck structures are considered excessive in size if the tonnage of the principal deck structure calculated using the formula below is equal to or exceeds the GT of the yacht's hull(s).



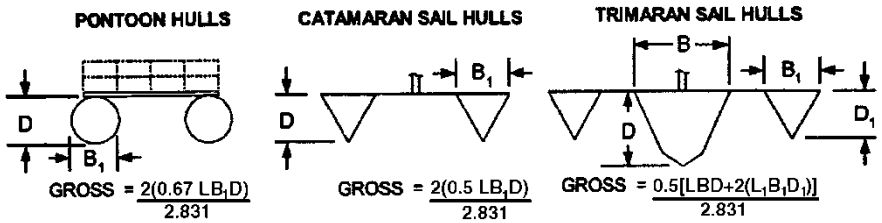
Principal Deck Structure Tonnage = L x B x D / 2.831

5.0 Calculations



6.0 Multihull Yachts

GT of a multihull yacht is the sum of the GT of each hull as calculated using the formulas listed above. For example:



Where L is the length of the center hull and L_1 is the length of the outside hulls.

ANNEX 4 – HELICOPTER AND LANDING FACILITIES

This Annex describes the minimum standards for helicopter landing facilities on board any yacht to which this Code applies, where helicopter operations to or from the yacht are performed.

It does not address the operation of a helicopter outside the scope of the landing area or associated helicopter facilities on board the yacht.

1.0 General

.1 The landing areas for helicopter operations to or from the yacht shall be located on an appropriate area of the weather or superstructure deck or on a purpose built landing area permanently attached to the yacht or structure.

.2 A helicopter operations manual which contains, at a minimum, the helicopter operation, landing and take-off procedures, fire-fighting and safety procedures, and drills shall be available on board. This manual shall also reflect §1.0.3 and §3.0 below.

.3 The HLA shall be designed taking into account the specifications of the helicopter that is intended to be used, in order to ensure the helicopter is afforded sufficient space for safe operations in all conditions.

.4 It is highly advisable that a helicopter connected to a mother yacht be included on the Official Record of Ancillary Vessels and Other Appurtenances (MI-200-A) for that mother yacht.

2.0 Certification

.1 The design, structural strength, fire-fighting, refueling, fuel storage, and hangar facilities of the HLA shall be designed and constructed in accordance with SOLAS regulation II-2/18 and the Rules of Class.

.2 Every HLA and its associated facilities shall be certified by an AIB in accordance with their rules and regulations. Where deemed necessary, the AIB may implement the application of any appropriate operational limitations.

.3 The Classification Society shall issue a Statement of Compliance for the HLA and associated facilities. The Statement of Compliance shall reflect any applicable operational limitations and/or restrictions imposed by the Classification Society.

.4 Once the Statement of Compliance has been issued, an HLA Certificate shall be issued by the AIB and is subject to revalidation every 24 months.

.5 *Aviation Inspection Body and Recognized Organization Responsibility Matrix for Certification of Helicopter Landing Areas* (YTC 3), outlines the scope of shared responsibilities between the Classification Society and the AIB in regard to plan reviews, surveys, and certification of HLAs on all yachts.

.6 An HLA Certificate recognized by another Administration may be accepted by the Administrator for the term of validity. Renewal inspection and certification may only be carried out by an AIB listed in MG 2-11-15.

3.0 Operations

.1 It is the responsibility of the Master in conjunction with the helicopter pilot to determine whether any helicopter operations can occur on the yacht. Factors to take into account in making this determination include, but are not limited to, the weather, sea state (and any other limiting conditions), as well as whether the HLA is fit for take-off and landing operations. Any limits defined in the helicopter operations manual shall also be taken into account.

.2 The helicopter pilot is responsible for ensuring full compliance with the requirements of the helicopter's registering Administration and the requirements of the local airspace authorities in which the helicopter operates.

.3 The crew assigned to duties with regards to the helicopter operations on board the yacht shall undergo familiarization training. This training shall include, but is not limited to, fire-fighting, rescue operations, and other emergency operations, as well as appropriate communication procedures.

.4 At least one (1) properly trained Helicopter Landing Officer shall be assigned. This person shall be trained by an appropriate training provider and suitably documented.

.5 If the yacht is equipped with helicopter refueling facilities, at least one (1) crew member shall be trained for the handling and quality control procedures of the aviation fuel carried on board, and this training shall be suitably documented.

.6 The duties, responsibilities, and procedures for each of the crew members required in §3.0.4 and §3.0.5 above shall be defined in the helicopter operations manual.

.7 The yacht to shore and yacht to helicopter communications procedures, ship operating procedures, and guidance on helicopter emergencies are outlined in the *International Chamber of Shipping Guide to Helicopter / Ship Operations* and shall be used as part of the helicopter operations manual. The latest edition of this guide should be readily available on board the yacht.

.8 Emergency scenarios shall be addressed in the yacht's SMS.

.9 Regular drills for helicopter emergency scenarios shall be carried out in conjunction with the SMS. These drills shall be recorded in the appropriate drill records.