# THE COASTAL AND OTHER PASSENGER VESSELS REGULATIONS OF 2002<sup>1</sup>

77 of 1985 32 of 1989 24(III) of 1997 10(III) of 2001.	The Council of the Ministers, in exercise of the powers conferred upon it by section 11(b) of the International Convention on the Safety of Life at Sea (Ratification) and Related Matters Laws 1985 to 2001 makes the following Regulations.
	It is hereby provided as follows:
Short title.	<b>1.</b> These Regulations may be cited as the Coastal and Other Passenger Vessels Regulations of 2002.
	PART I – INTRODUCTION
Interpretation.	2. In these Regulations, unless the context otherwise requires -
56(1) of 1992 60(1) of 1999 73(1) of 2001.	"coastal passenger vessel" or "vessel" means a floating structure or a high speed small vessel, in accordance with section 2 of the High Speed Small Vessels Laws of 1992 to 2001, which performs voyages for the transport of passengers to and from different parts of the coast of Republic, sea tours, education and training, amateur fishing, diving, embarkation or disembarkation to another vessel or ship or other related activity along the coasts of the Republic and includes a small passenger vessel;
	"cockpit" means an exposed recess in the weather deck, extending not more than half the vessel measured on that deck;
	"Competent Authority" means the Minister of Communications and Works and any other person generally or specially authorised by him;
224 of 1990 106(1) of 1992 15(1) of 1993 53(1) of 1993 44(1) of 1996 34(1) of 1997 15(1) of 2002 24(1) of 2002.	"CSTC" means the Cyprus Scientific Technical Chamber established under the Cyprus Scientific Technical Chamber Laws of 1990 to 2002 ;

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According to Article 3 of the Constitution of the Republic of Cyprus, the official languages of the Republic of Cyprus are Greek and Turkish and therefore the present translation into English is not the authentic version. The authentic and therefore legally binding version, is the Greek version of these Regulations.

"Engineer" means a degree-holder Naval Architect or Marine Engineer, member of the CSTC;

"existing vessel" means every vessel which is not a new vessel;

"length" means the length of the vessel recorded in the Certificate of Registration. For vessels entered in the small vessels special record (Register) of the Department of Merchant Shipping, length means the total length of the vessel;

"length between perpendiculars" means the horizontal distance between perpendiculars taken at the forwardmost and the aftermost points on the waterline corresponding to the normal operational draft of the vessel;

"nautical mile" means a unit equal to 1852 meters;

"new vessel" means a vessel the keel of which was laid or its construction progressed to a percentage less than 1% of the total mass of construction, on, or after, the date of coming into force of these Regulations  $^2$ ;

"night voyage (cruise)" means a voyage (cruise) or part of a voyage (cruise) performed between sunset and sunrise;

"open boat" means a boat not protected from entry of water by means of a complete weathertight deck or by a combination of a partial weathertight deck and superstructure;

"organization" means a classification society or other private organization performing assessments for the safety of ships on behalf of the Competent Authority;

"passenger" means every person carried by a vessel, other than the skipper and the crew, against payment to a person or a company or against subscription, or fees, to a club or association;

"place of refuge" means any naturally or artificially sheltered area which may be used as a shelter by a vessel under conditions likely to endanger its safety;

"prohibition of sail" or "detention" means express prohibition of sail of a vessel due to ascertained deficiencies, which render the vessel unseaworthy;

*46(1) of 2001.* "recognized organization" means an organization recognized in accordance with the provisions of section 6 of the Merchant Shipping (Recognition and Authorization of Organizations) Law of 2001;

"recognized shipwright" means a shipwright recognized by the Competent Authority as sufficiently possessing the techniques of material selection and construction of traditional design wooden vessels and other wooden vessels;

"safety certificate" means a Coastal Passenger Vessel Safety Certificate, or Small Passenger Vessel Safety Certificate;

"small passenger vessel" means a marine craft or high speed small vessel engaged in voyages in areas beyond the coast of the Republic, carrying not more than 12

 $<sup>^{2}</sup>$  <u>Editorial Note</u>: It is recalled that these Regulations came into force on their date of publication in the Official Gazette of the Republic , i.e. <u>on 19 July 2002</u>.

#### passengers;

77 of 1985 32 of 1989 24(III) of 1997 10(III) of 2001. "SOLAS" means the International Convention for the Safety of Life at Sea, as in force for the time being in the Republic by virtue of the International Convention for the Safety of Life at Sea (Ratification) and Matters Connected Therewith Laws of 1985 to 2001;

"steering position" means the space where control and maneuvering of the vessel's route are conducted;

"Surveyor" means a Surveyor of ships appointed by the Council of Ministers in accordance with section 3 of the Merchant Shipping (Registration of Ships, Sales and Mortgages) Laws of 1963 to 1996;

45 of 1963 32 of 1965 82 of 1968 62 of 1973 102 of 1973 42 of 1979 25 of 1980 14 of 1982 57 of 1986 64 of 1987 28(1) of 1995 37(1) of 1996.

> "traditional design wooden vessel" means a type of vessel for which the Competent Authority recognized that the design and construction techniques were developed and transmitted through the ages from craftsman to craftsman;

> "unseaworthy vessel" means a vessel which, due to insufficient condition of the structure, machinery, or equipment, or due to insufficient in number or qualifications manning, or due to overloading, is, considering the nature of the voyages she performs, unsuitable for navigation without endangering human life;

"voyage" means the route of a vessel from the place of embarkation to the place of final disembarkation of the passengers;

"watertight", in terms of structure, means the ability to withstand ingress of water through the structure under a height of water equal to the distance from the lower point of the structure to the sea level during intact or damage condition;

"watertight bulkhead deck" means the uppermost deck up to which the watertight transverse bulkheads are carried;

"weathertight" means that water will not penetrate under any sea conditions.

Application and prohibitions.

**3**.-(1) These Regulations apply to coastal passenger vessels.

(2) The performance of a voyage without a valid safety certificate is prohibited.

(3) The performance of a voyage by an unseaworhty vessel is prohibited.

(4) The performance of a voyage with a number of passengers greater than the number provided for by the safety certificate is prohibited.

(5) Vessels holding a Passenger Ship Safety Certificate issued in accordance

with SOLAS, and the International Convention on Load Lines, as in force for the time being in the Republic, by virtue of by virtue of the International Convention on Load Lines 1966 (Ratification) and Matters Connected Therewith Laws of 1969 to 1997, shall be inspected to verify compliance with the provisions of these Conventions and the present Regulations.

39 of 1969 24 of 1973 17 of 1974 43 of 1977 7 of 1982 53 of 1984 90 of 1986 25(III) of 1997.

Transition period.

**4.**-(1) New vessels shall comply with the requirements of these Regulations as from the date of their entry into force  $^{3}$ .

(2) Existing vessels shall comply with the requirements of these Regulations as provided hereunder:

- (a) As from the date of entry into force of these Regulations:
  - (i) with Part I, except subparagraph (b) of paragraph (2) of Regulation 5, and with Part II, except subparagraph (b) of paragraph (2) of Regulation 12;
  - (ii) with Regulation 25, except paragraph (11), and with Regulations 26, 28, 29 and 31 of Part III ;
  - (iii) with Part IV, except paragraphs (2), (3), (4) and (5) of Regulation 35 and subparagraph (b) of paragraph (2) of Regulation 36;
  - (iv) with Regulation 40, of Part V;
  - (v) with Regulations 55, 56 and 57 and paragraph (4) of Regulation 58 of Part VI;
  - (vi) with paragraphs (6) and (7) of Regulation 62, and Regulations 66, 67, 68 and 69, of Part VII ;
  - (vii) with Regulations 71, 72 and 79, of Part VIII;
  - (viii) with Parts IX and X.
- (b) Within a period not exceeding one year from the date of entry into force of these Regulations:

With paragraph (4) of Regulation 5, of Part I, with subparagraph (b) of paragraph (2) of Regulation 36 of Part IV and the remainder of Part VIII.

(c) Within a period not exceeding five years from the date of entry into force of these Regulations:

With subparagraph (b) of paragraph (2) of Regulation 5, of Part I, subparagraph (b) of paragraph 2, of Regulation 12, of Part II, paragraph (11) of Regulation 25, of Part III, and the remainder of Parts III, V, VI and VII.

Design and plan submission.5. The following studies and plans shall be submitted to the Competent Authority for approval, together with a letter from an Engineer, verifying that these have been carried out in accordance with rules and standards accepted by the

<sup>&</sup>lt;sup>3</sup> <u>Editorial Note</u>: It is recalled that these Regulations came into force on their date of publication in the Official Gazette of the Republic , i.e. <u>on 19 July 2002</u>.

Competent Authority:

(1) For new vessels of 12 meters in length or more, from the date of entry into force of these Regulations -

- (a) general arrangement plan, midship section plan, longitudinal profile and deck plan, construction details, freeboard;
- (b) intact stability study, damage stability study;
- (c) propulsion system, steering system, mooring and anchorage system, ventilation system, bilge pumping layout, fuel system, sewage and oily residues arrangement, controls system, electrical installation;
- (d) structural fire protection, means of escape, firefighting equipment, lifesaving appliances, emergency power system;
- (e) for sailing vessels, masts plans including integration into the vessel structure, rigging plan with centers of effort and connections of the standing rigging, and other plans, studies or standards which the Competent Authority considers necessary.

(2) For existing vessels of 12 meters in length or more, instead of the plans and studies required in paragraph (1), the following may be submitted:

- (a) As from the date of entry into force of these Regulations: general arrangement plan, means of escape, intact stability study, firefighting equipment, lifesaving appliances; and
- (b) within five years as from the date of entry into force of these Regulations -
  - (i) midship section plan , longitudinal profile and deck plan, construction details, fire protection, freeboard,
  - (ii) damage stability study,
  - (iii) a report describing the mechanical and electrical installation including reference to their sufficiency in relation with the requirements of the respective Parts, which shall be accompanied with calculations where required by these Regulations, sketches and photographs where deemed necessary, and
  - (iv) for sailing vessels, masts plans, including integration into the vessel structure, rigging plan with centers of effort and connections of the standing rigging and other plans, studies or standards which the Competent Authority may consider as necessary.

(3) For new vessels of less than 12 meters in length, instead of the plans and studies required in paragraph (1) the following may be accepted as from the date of entry into force of these Regulations:

(a) General arrangement, midship section, longitudinal profile and deck plan, construction details, fire protection, means of escape, freeboard, stability, firefighting and lifesaving equipment, in sketches and a report of mechanical and electrical installation, standards, sufficiently detailed at the discretion of the Competent Authority and signed by an Engineer; or (b) maker's manual where standards of construction, equipment and safety are shown, sufficiently detailed at the discretion of the Competent Authority.

(4) For existing vessels of less than 12 meters in length, instead of the plans and studies required in paragraph (1), the plans and studies required in paragraph (3) may be submitted within a period of one year from the date of entry into force of these Regulations.

(5) For new and existing traditional design wooden vessels and other wooden vessels designed by a recognized shipwright, for which no recorded rules and standards of construction exist, construction plans shall be submitted but exempted from the endorsement requirement by an Engineer.

(6) For the purpose of this Regulation, in the case of electrical or other specialized installations, "Engineer" means a degree-holder Engineer of the relative discipline, member of the CSTC.

In the case of an Engineer – member of a technical chamber or of a corresponding authority of another State, his professional qualifications shall be subject to acceptance by the Competent Authority.

**6.**-(1) The supervision of the construction, machinery and electrical installations and the safety and navigation equipment shall be undertaken by an Engineer who shall also supervise compliance with the approved plans required in Regulation 5.

- (2) The supervision shall verify -
  - (a) the level of compliance of materials, construction, installations and equipment with the approved plans and studies; and
  - (b) the use of high standards of practice, the technical ability of the personnel and work quality in general.

(3) The Competent Authority may exempt standardised models of factory vessels of less than 18 meters in length from the requirement of supervision.

(4) Material selection and the construction of traditional design wooden vessels, and other wooden vessels, shall be undertaken by a recognized shipwright.

(5) In the case of electrical or other specialized installations, "Engineer" means a degree-holding Engineer of the corresponding discipline, member of the CSTC.

In the case of an Engineer – member of a technical chamber or of a corresponding authority of another State, his professional qualifications shall be subject to acceptance by the Competent Authority.

(6) The Competent Authority may, at any stage, inspect the supervision of the construction and installations.

7.-(1) Vessels shall be subjected to initial surveys, periodical surveys and occasional surveys.

The initial and periodical surveys of vessels shall be conducted upon written request by the owner, or his representative. Occasional surveys shall be conducted

Supervision of constructions and installations.

Survey and issue of Safety certificate. without notification to the owner or his representative.

Second Schedule .

*Example 1* Coastal passenger vessels that, following a survey, satisfy the requirements of these Regulations, shall be provided with a Coastal Passenger Vessel Safety Certificate valid for a period not exceeding one year and shall be in the form of the First Schedule .

Small passenger vessels that, following a survey, satisfy the requirements of these Regulations shall be provided with a Small Passenger Vessel Safety Certificate valid for a period not exceeding one year and shall be in the form of the Second Schedule.

(2) An initial survey shall be conducted before a vessel is put into service for the performance of voyages for passenger transport and for the -

- (a) verification of conformity of construction and installations of the vessel with the approved plans and studies, the construction and installation work quality and compliance with these Regulations. For existing vessels, verification of conformity shall be done within the time period provided in Regulation 4;
- (b) sea-trials to verify the performance of the vessel, which shall include examination of suitability of the steering position, maneuverability test at different speeds, efficiency of machinery and equipment control mechanisms, passenger movement, effectiveness of the means of going astern and stopping and mooring and anchoring capability;
- (c) survey of the electrical installation, cables, switches, circuit breakers, generators and motors, batteries, earth systems, operation tests, megger test, flush test and other electrical or electronic tests if the Surveyor considers them necessary.

(3) The safety certificate shall be renewed each year, before expiration, following a periodical survey conducted in order to verify maintenance of compliance of the vessel with these Regulations.

In particular, the following may be required:

- (a) Drill performance to verify crew readiness to deal with emergency situations and the suitability of vessel's installations;
- (b) survey of the arrangement and operation of emergency systems;
- (c) survey of lifesaving appliances and navigation and telecommunications equipment;
- (d) survey of fire protection systems;
- (e) operation of machinery, appliances and instruments;
- (f) removal of structural members, sheathings and covers for inspection, and/or submission to tests in order to verify their condition and properties;
- (g) survey of passenger spaces and passenger means of protection, structural fire protection, means of escape, anchoring and mooring

arrangement, freeboard, drainage arrangement and permanent ballast;

- (h) survey of the structure and arrangements concerning damage stability;
- (i) opening up of machinery and/or arrangements for inspection and tests to verify properties or operational efficiency, inspection of fuel tanks and fuel systems, machinery and fuel tank spaces ventilation and bilge pumping, steering and control systems;
- (j) survey of the electrical installation including cables, switches, circuit breakers, generators and motors, accumulators (batteries), earth systems, operational tests, megger test, flush test and other electrical or electrical installations tests if the Surveyor considers them necessary;
- (k) sea trials; and
- (1) survey of wetted surface out of the water in time periods not exceeding 12 months for wooden or fibreglass hulls, and not exceeding 24 months for steel hulls. The Department of Merchant Shipping should be notified at least 2 working days before a vessel enters a repair facility or other space where repair or maintenance are to be effected out of the water.

(4) The hull, machinery and equipment condition shall always be maintained in accordance with the provisions of these Regulations without endangering the life of the passengers or the crew.

(5) Vessels shall be subject to occasional surveys without notice to the owner or his representative.

If, during an occasional survey, a vessel is found to be unseaworthy the Surveyor may suspend the validity of the safety certificate, or cancel it, and prohibit sail.

The sail of a vessel which is not made available for survey by the master, the owner or his representative, is prohibited.

(6) In addition to any other cases of prohibition of sail mentioned to in these Regulations, the sail of a vessel is prohibited in the case of -

- (a) serious deficiencies in operational requirements, embarkation and disembarkation of passengers, preparation and dealing with emergency situations, systems of warning, public address and alarms and manning and qualifications of the skipper and the crew;
- (b) serious structural wear or damage in the hull, decks or structural members affecting seaworthiness;
- (c) deficiencies in the means of escape and the drainage system;
- (d) absence or illegibility of load line or draft marks;
- (e) absence, wear, unsuitability, or defective operation, of the means of watertightness;
- (f) insufficient stability, or absence of the stability booklet;

- (g) supernumerary passengers or overloading;
- (h) unsuitability, non-operation or malfunction, to a degree endangering human life, of the propulsion machinery, fuel system, ventilation, bilge pumping system or control system;
- (i) unsuitability, non-operation or malfunction, to a degree endangering human life, of the electrical installation and the emergency source of electrical power;
- (j) unsuitability, absence, deficiency or wear, to a degree endangering human life, of fire pumps, fixed fire fighting systems and fire equipment in general;
- (k) unsuitability, absence, deficiency or wear of life-jackets, lifebuoys, survival craft and launching appliances;
- (l) absence, unsuitability or non-operation of telecommunications equipment concerning emission of distress, or other safety, messages;
- (m) absence or non-operation of navigation equipment;
- (n) absence, deficiency, wear, unsuitability or non-operation of lights, shapes and sound signals.

(7) During surveys of existing vessels, conducted in the period that intervenes until these Regulations are in force in their entirety, only satisfactory condition of the vessel and satisfactory operation of existing installations and equipment shall be required.

**8.** -(1) The skipper, or the owner of the vessel, shall notify in writing the Competent Authority at least 2 weeks prior to the beginning of major repairs, conversions or modifications in the hull or decks, alteration of the vessel's main dimensions or structural members dimensions, other works that might alter the strength, structural fire-protection, stability, watertightness, subdivision, machinery and propulsion system, pumping, steering, the electrical installation and the rigging system affecting the design on the basis of which the safety certificate was issued.

(2) For the execution of the abovementioned work, the vessel shall be considered as a new vessel, studies, plans, documents and standards shall be submitted and an Engineer shall supervise the work.

(3) Manuals and booklets for use by the skipper and the crew, affected as a consequence of the above work shall be amended accordingly.

**9.** The Competent Authority may limit the length, area and duration of voyages considering the safety of the vessel in general, the safety of the persons on board, the navigational conditions, the capabilities provided by the design, structure, stability, subdivision, propulsion system, maneuverability, behaviour at sea in general, and the vessel's autonomy.

**10.-**(1) The number of passengers shall be determined by the Competent Authority and shall not exceed in any case 150. For the determination of the number of passengers, the available space and the general arrangement of the vessel, the

Repairs, modifications.

Voyage areas.

Number of permitted passengers. means of escape, the area of operation, the nature of the service offered, stability, subdivision, lifesaving appliances, crew number and construction standards shall, inter alia, be taken into account.

(2) Infants, of age less than one year, shall not be considered as passengers.

### PART II: GENERAL OPERATIONAL REQUIREMENTS

Operational requirements.

**11**.-(1) The command and operations of the vessel shall be undertaken in such a way that the safety of the persons on board, and the safety of the vessel, are ensured.

(2) The sail of a vessel to a distance of more than 3 nautical miles from a coastline where shipwrecked persons may land, and 6 nautical miles from a place of refuge, is prohibited.

(3) The departure of a vessel under sea conditions, of wave height more than <sup>1</sup>/<sub>2</sub> meter and wind force greater than 4 beaufort or restricted visibility conditions, or in conditions predicted by an official weather forecast to exceed the above limits during the attempted voyage, is prohibited.

(4) Recorded instructions for the routine operations of the vessel shall be maintained.

(5) There shall be a continuous effort to recognize potential hazards in order to improve working practices.

(6) Vessels using a port, refuge, marina, wharf, quay or other structure, if such facilities are needed for the embarkation/ disembarkation of passengers, must have permission to use such a place.

(7) The skipper and the crew are prohibited from undertaking and/or performing duties on board while under the influence of alcohol, drugs or narcotic substances.

(8) Before each departure, the skipper shall test the operation of the steering, horn, maneuvering system and telecommunications equipment.

(9) Before each departure, the skipper shall check that the vessel is not listed, freeboard is within prescribed limits, watertight doors and all openings in the hull are closed, and in general, check that the vessel complies with the assumptions and conditions of the intact and damage stability Booklets.

(10) During mooring of the vessel, precautions for the protection of passengers and the prevention of accidents due to mishandling of the vessel, machinery and mooring equipment shall be taken.

**12.-**(1) Provision shall be made for the safe embarkation /disembarkation of passengers through quay, wharf or other designated position, with means providing protection to the passengers.

- (2)(a) Embarkation/disembarkation facilities to and from the vessel shall be subject to acceptance by the Competent Authority.
  - (b) Vessels shall have facilities for the embarkation/ disembarkation of

#### people with disabilities.

(3) The use of embarkation/disembarkation crafts (tender boats) shall be limited to voyages of a maximum duration of 15 minutes. The crafts shall be subject to acceptance by the Competent Authority, shall have a life-jacket for each person on board and their command shall be undertaken by a qualified skipper.

(4) The powered emergency craft provided for in paragraph (2) of Regulation 83 may be used as an embarkation/disembarkation craft (tender boat).

(5) Before each departure, the skipper shall hand a signed note to his authorized representative at the place of departure, where the total number of the persons on board (passengers, crew and any others) shall be recorded, and separately the number of minors, infants, and people with disabilities.

The name, ID number, address and telephone number of the authorized representative shall be notified to the Competent Authority and to the nearest port and marine police station.

The signed note shall be available for immediate delivery to a Surveyor or to authorised personnel of the port and marine police.

(6) During arrival and before disembarkation, at intermediate stops, and at the point of disembarkation, the skipper shall verify the number of persons on board.

**13.-**(1) If, despite the official weather forecast, the weather conditions mentioned in paragraph (3) of Regulation 11 deteriorate, the skipper of a coastal passenger vessel shall discontinue the voyage and direct the vessel to the nearest place of refuge.

(2) Lifesaving appliances and firefighting equipment shall always be ready for use and there shall be no obstructions of other equipment or appurtenances of the vessel.

(3) Under the responsibility of the skipper the following shall be effected:

- (a) An examination, including an operation test, if applicable, of the warning, public address and alarm, lifesaving appliances and firefighting equipment at least once a week;
- (b) an examination, including an operation test, of the means of watertightness (doors, mechanism, valves etc) at least once a day; and
- (c) an examination of watertight doors with mechanisms and indicators, valves, the closing of which is necessary to make compartments watertight and valves whose operation is necessary for damage control cross-connections, at least once a week.

(4) The skipper shall train each new crew member, before undertaking duties, in dealing with emergencies.

(5) Man overboard, abandoning, flooding and fire drills shall be conducted at least once every 2 weeks, under the responsibility of the skipper and with the participation of all crew members.

(6) Vessels of 12 meters in length or more, with a crew number greater than 2, shall have a muster list for emergency situations. In the muster list, the duties of

Preparation and dealing with emergencies. the skipper and of each crew member in emergency situations shall be allocated. The muster list shall be subject to approval by the Competent Authority.

(7) The skipper shall be responsible to inform the passengers, before departure, of the general alarm signal, the means of escape, the locations of life-jackets and the way they are performed.

(8) In case of bad weather, fire, flooding or other incident that might lead to the abandoning of the vessel, passengers shall wear life-jackets and the crew shall offer them any assistance relating thereto.

Procedures and means of assisting people with disabilities, by the crew, must be provided for.

(9) The skipper and the crew members shall wear clothing making them recognizable.

**14.**-(1) The warning, public address and alarm systems shall be of a type and design suitable for the vessel's requirements and the purpose it serves and shall meet the requirements in force of recognized organizations, or technical standards accepted by the Competent Authority.

(2) Vessels with more than one deck, or of 18 meters in length or more, shall be provided with a general alarm system.

(3) Vessels of 12 meters in length or more, shall have a speaking trumpet with spare batteries at the steering position.

Vessels of 18 meters in length or more shall be provided with a public address system in all passenger and crew spaces if the Competent Authority considers that necessary due to the construction and arrangement of the vessel.

(4) Whenever foreign passengers are carried, all announcements shall also be made in their native language, and if that is not practical, in English.

(5) At the steering position of decked vessels, except vessels of less than 12 meters in length where due to construction at the discretion of the Competent Authority a direct oversight of bilges and machinery is possible, the following shall be provided:

(a) Sound and visual warning system for high bilge level of machinery, watertight compartments or other spaces that might be flooded;

(b) sound and visual alarm system for fire in machinery space.

**15.-**(1) Safe manning of vessels, hours of work and rest, watchkeeping and crew composition shall be regulated in accordance with the provisions of the Merchant Shipping (Safe Manning, Hours of Work and Watchkeeping) Law of 2000.

(2) The vessel shall be under the command of a skipper at all times. In vessels of 12 meters in length or more, which carry more than 50 passengers, at the steering position a member of the crew shall also undertake duties.

(3) The skipper and the crew must hold certificates of maritime competency and other certificates, as provided by the Merchant Shipping (Issue and Recognition of Certificates and Maritime Training) Law of 2000.

Warning, public address and alarm systems.

Manning and crew qualifications. 105(I) of 2000.

109(I) of 2000.

	(4) The skipper and the crew shall bear with them their certificates of competency and licenses at all times.
	(5) Skippers of sailing vessels shall be in possession of a certificate, or verification for successful attendance of a specialized course, recognized by the Competent Authority, for the navigation and use of such type of vessels.
107(1) of 2000.	(6) The skipper and the crew shall be in possession of a Certificate of Medical Examination, as provided by the Merchant Shipping (Medical Examination of Seafarers and Issue of Certificates) Law of 2000.
First-aid.	<b>16.</b> -(1) Vessels shall be provided with a portable first-aid kit, kept in a permanent and conspicuous position, which shall contain:
	<ul> <li>Triangular bandage,</li> <li>3 medium size sterile gauze,</li> <li>10 sterile gauze,</li> <li>large size sterile gauze,</li> <li>2 elastic bandages,</li> <li>scissors,</li> <li>hydrogen Peroxide, H<sub>2</sub>O<sub>2</sub>,</li> <li>iodine Povidone 10%,</li> <li>quantity of Betadine,</li> <li>anatomic pincers,</li> <li>3 pairs of surgical gloves,</li> <li>notebook and pencil,</li> <li>2 adhesive tapes,</li> <li>oxygen mask,</li> <li>oxygen bottle,</li> <li>3 sterile syringes 10 ml,</li> <li>box of Fenistil ampoules,</li> <li>box of 24 analgesic pain killer,</li> <li>quantity of seasickness pills.</li> </ul>
	(2) At least one of the crew members must hold a medical first-aid certificate acceptable by the Ministry of Health.
Protection of the environment.	<b>17</b> (1) The discharge of any article, solid or liquid, including garbage, sewage and fuel residues is prohibited.
	(2) Vessels with toilets shall be provided with a holding tank having a minimum capacity of 4 liters per person on board and a device for shore delivery.
	<ul> <li>(3) (a) Vessels shall be provided with an oil residues holding tank, the minimum capacity of which shall be calculated using the formula V ≥ 1,5P, where V is the tank capacity in liters, and P the power of the propulsion engines in kilowatt;</li> </ul>
	(b) vessels shall be provided with a device allowing the delivery of the oil residues ashore.
	(4) Vessels shall be provided with garbage receptacles of sufficient capacity proportionate to the number of passengers. Garbage shall be delivered ashore.

(5) Smoking in enclosed spaces is prohibited. Open spaces shall be provided with a sufficient number of sand ashtrays.

Marking and signs.

**18.-**(1) Vessels shall be provided with signs and marking as follows:

(a) At a conspicuous location on the vessel a sign shall read:

"TO  $\Sigma$ KA $\Phi$ O $\Sigma$  EXEI META $\Phi$ OPIKH IKANOTHTA ( ...) ATOM $\Omega$ N THIS VESSEL HAS A CARRYING CAPACITY OF ( ... ) PERSONS";

- (b) at a conspicuous position on the way to decks, above the main deck, there shall be a sign showing the maximum number of passengers allowed in that space;
- (c) the embarkation/disembarkation craft (tender boat) shall, in addition to its own required marking, be marked with the name of the vessel, the port of registry and the maximum number of persons the craft may carry;
- (d) at the position where the first-aid kit is kept, a sign shall read: "ΚΙΒΩΤΙΟ ΠΡΩΤΩΝ ΒΟΗΘΕΙΩΝ / FIRST-AID KIT";
- (e) at a conspicuous position a sign shall read:
  - "ΑΠΑΓΟΡΕΥΕΤΑΙ η ρίψη οποιωνδήποτε αντικειμένων ή ουσιών σε ξηρά ή υγρά μορφή στη θάλασσα/
  - The disposal of articles or any substances in solid or liquid form into the sea is PROHIBITED";
- (f) on both sides of the means of escape there shall be photo luminescent signs reading:

"E $\Xi$ O $\Delta$ O $\Sigma$  KIN $\Delta$ YNOY – THPH $\Sigma$ TE A $\Pi$ O $\Sigma$ TA $\Sigma$ H/ EMERGENCY EXIT – KEEP CLEAR";

(g) on both sides of watertight doors there shall be photo luminescent signs reading:

"ΥΔΑΤΟΣΤΕΓΗΣ ΘΥΡΑ – ΝΑ ΜΕΝΕΙ ΚΛΕΙΣΤΗ/ WATERTIGHT DOOR – KEEP CLOSED";

- (h) valves and devices activating emergency systems shall have appropriate marking;
- (i) at the position of the fuel cut-off device required in the fourth subparagraph, of paragraph (3) of Regulation 56 a sign shall read:

"KPOYNOS  $\Delta$ IAKOTHS KAYSIMON / FUEL SHUT-OFF VALVE";

- (j) the positions of the firefighting equipment shall be appropriately marked with photo luminescent symbols or signs;
- (k) at the fire detection and extinction control and actuation position, and at the gas cylinders position, there shall be a sign with instructions for activation of the system;
- life-jackets shall be marked with the name of the vessel. Lifebuoys and life floats shall be marked with the name of the vessel and the port of registry;
- (m) the spaces where adult and children life-jackets are kept shall be marked appropriately with photo luminescent symbols or signs showing the type and number of the lifejackets kept therein;

Signs and sketches of instructions how to use a life-jacket shall be posted;

- (n) the hull of the powered emergency boat shall, in addition to its own required marking, be marked with the name of the vessel, the port of registry and the maximum number of persons the boat may carry;
- (o) a sign with instructions how to send a distress message shall be mounted at the location where the VHF radio is installed;
- (p) in vessels not complying with the provisions of paragraph (2) of Regulation 12, and paragraph (11) of Regulation 25, a sign at a conspicuous position shall read:

"TO  $\Sigma$ KA $\Phi$ O $\Sigma$   $\Delta$ EN EXEI KATA $\Sigma$ KEYA $\Sigma$ TEI ГІА NA ΠΑΡΕΧΕΙ  $\Delta$ ΙΕΥΚΟΛΥΝΣΕΙ $\Sigma$   $\Sigma$ E ATOMA ME ΕΙ $\Delta$ ΙΚΕ $\Sigma$  ΑΝΑΓΚΕ $\Sigma$  / THIS VESSEL IS NOT CONSTRUCTED TO PROVIDE FACILITIES TO PEOPLE WITH DISABILITIES".

(2) Marking shall be in the Greek and English languages, without excluding additional languages at the discretion of the Competent Authority.

- (3) (a) The minimum letter height shall be 5 centimeters, except for lifejackets where it may be 2,5 centimeters;
  - (b) the minimum letter height for signs shall be 5 centimeters, except for signs of instructions where height may be 2,5 centimeters.

**19.-**(1) The skipper, owner, or manager of the vessel shall immediately inform the Competent Authority whenever a vessel, the machinery, equipment or persons onboard sustain damage, or are involved in an accident, or in a situation that may affect the safety of the vessel, persons on board, or the marine environment.

(2) The skipper, owner, or manager of the vessel shall submit a report of events for each accident or near miss and shall provide any assistance as requested by the Competent Authority.

**20**.-(1) The safety certificate shall be posted at a conspicuous position of the vessel.

(2) For each voyage, the number of passengers carried, the exact course and route, the time and position of departure and arrival, including intermediate stops,

Accidents.

Documents to be kept.

as well as the exact time of closure and opening of watertight doors shall be entered in the official Log book.

(3) Training, drills, inspections and examinations required to take place by the skipper and the crew, shall be entered in the official Log book.

(4) The skipper shall enter in the official Log book, the sequence of events of an accident or other incident referred to in paragraph (1) of Regulation 19.

**21.** For the payment of fees, the provisions of the Merchant Shipping (Fees and Taxing Provisions) Laws of 1992 to 1999 apply.

38(1) of 1992 29(1) of 1995 63(1) of 1999 73(1) of 1999.

Equivalent arrangements, exemptions.

Fees.

**22.**-(1) The Competent Authority may, following an application made by the owner, and taking into consideration the technical characteristics and construction of the vessel, the type of services provided, the area and duration of voyages and the expected time of rescue in the case of emergency -

- (a) approve arrangements, equipment, instruments, tests or calculations, if satisfied with appropriate tests or other methods that their performance is equivalent to that required by these Regulations;
- (b) approve temporary exemptions and/or equivalent arrangements, setting such provisions as not to reduce the level of safety of the vessel, those on board and the protection from pollution of the marine environment;
- (c) issue, in exceptional cases, a safety certificate for more than 150 passengers for a specific voyage; and
- (d) exempt vessels of less than 12 meters in length to carry no more than 15 passengers from the requirements of Parts III, V, VI, VII, VIII and IX whenever their application is considered as not necessary or practicable, making provision not to reduce the level of safety of the vessel, and those on board, and the protection from pollution of the marine environment.

(2) Exemptions, equivalent arrangements and the conditions under which they were granted shall be entered in the safety certificate.

*Offences.* **23.**-(1) Any person who contravenes these Regulations shall be guilty of an offence and in case of conviction shall be liable to a fine not exceeding £5.000, or to imprisonment for a term not exceeding 2 years, or to both such sentences.

(2) In addition to the provisions of paragraph (1), in case the number of passengers permitted is exceeded, the Competent Authority may impose an administrative fine not exceeding five thousand pounds.

# PART III: CONSTRUCTION – FIRE PROTECTION – GENERAL TECHNICAL PROVISIONS

Structural strength.

24.-(1) The construction of vessels shall be of such type and design as suitable

for the safe operation in the conditions of the performed voyages and shall provide to the passengers and crew protection from risks of accidents.

(2) Vessels shall be constructed in accordance with current requirements of recognized organizations or technical standards accepted by the Competent Authority with regard to construction materials, structural member dimensions, navigation conditions, and in general, the operation and service engaged to.

Alternatively, vessels may be designed with basic naval architecture principles and safety margins and tolerances set by the Competent Authority.

New and existing traditional design wooden vessels for which prototype plans have been filed with the Competent Authority and accepted, shall be exempted from the provisions of this Regulation.

(3) Samples of the materials of construction shall be submitted to the Competent Authority for acceptance. The Competent Authority may require documents certifying or supporting their mechanical properties including their thermal behavior.

(4) Special attention shall be paid to the storage conditions of the materials during the period between their production and use in construction.

**25.**-(1) Passenger spaces shall be arranged and equipped so as to provide for the safety of the passengers.

(2) For each passenger there shall be available -

- (a) a seat of 50 centimeters minimum width; and
- (b) minimum deck surface of 0,81 square meters in new vessels and 0,64 square meters in existing vessels, suitable for walking.

Vessels of less than 12 meters in length, which perform voyages of maximum duration of  $1\frac{1}{2}$  hour, shall be exempted from the requirement of a minimum deck surface.

(3) Common use spaces shall have a minimum height of 2 meters.

(4) Floors shall have non-slippery characteristics.

(5) Passenger spaces shall not contain electrical generation equipment, transformers, high temperature parts, piping and rotating machinery, unless such items are adequately shielded or isolated.

(6) Seats shall be arranged in such a way so that they do not constitute obstruction to the escape of passengers towards stairs and spaces of disembarkation.

(7) The front side of each seat shall have a minimum of 40 centimeters of available space for the comfort of passengers. In case of a corridor, this distance shall be increased to at least 80 centimeters.

(8) Corridors shall have a minimum width of 80 centimeters.

Passenger spaces.

(9) A minimum free space of 60 centimeters shall be allocated between opposite seats.

(10) At least one toilet with a washbasin shall be provided for every 40 passengers or part thereof. The minimum floor surface of the toilet shall be at least 0,81 square meters.

Vessels of less than 18 meters in length without a toilet and wash basin may carry passengers for voyages of 1  $\frac{1}{2}$  hour maximum duration provided that a sign is posted at a position visible at the embarkation space, with minimum dimensions of 20x15 centimeters, reading:

"Το σκάφος δεν διαθέτει χώρους υγιεινής – Μέγιστη διάρκεια πλόων  $1\frac{1}{2}$  ώρα / There is no toilet on this boat – maximum duration of trip  $1\frac{1}{2}$  hour".

(11) Notwithstanding the provisions of subparagraph (b), of paragraph (2), of Regulation 12, passenger spaces, including sanitary spaces, shall be arranged to facilitate the movement of people with disabilities:

Provided that, in cases of some vessels where the Competent Authority considers that the above arrangement is impracticable, the vessel shall be granted an exemption.

(12) The provisions of paragraphs (3), (7), (8) and (9), when applied to existing vessels, should not cause extensive structural modifications, when the modification of the existing arrangement will not substantially improve the passengers safety in the opinion of the Competent Authority.

**26**.-(1) Vessels shall be provided with protective railing or other structure of equivalent protection, of robust construction with minimum height 100 centimeters from deck. In the case of railings the distance between intermediate horizontal railings shall not exceed 35 centimeters. Distance between stanchions shall not exceed 120 centimeters.

For sailing vessels the height of the railing may be limited to 50 centimeters.

Sailing vessels carrying passengers exclusively for training or practice may be exempted from the provisions of this paragraph if the Competent Authority considers that these hinder the vessel's operation.

(2) The structure of equivalent protection may be comprised of wire ropes or bulwarks with strength and support equivalent to that of fixed railings.

(3) Railings shall be proved to withstand a point load of 900 Newton applied at any point and in any direction, and a uniform load of 750 Newton/meter applied at the top rail in any direction. The two loads need not be applied simultaneously.

(4) The lower part of railings shall be protected with mesh to a minimum of 50 centimeters height throughout its length.

**27.**-(1) The general construction of a vessel shall be such as to minimize fire hazards.

Hull, decks, superstructures, accommodation spaces and bulkheads shall be

Passengers

protection.

Fire protection. constructed of materials that do not emit potentially hazardous substances if inhaled during combustion.

Vessels constructed of fiber reinforced plastic containing general purpose resin shall have a fire detection system complying with the requirements of Part VIII and the material shall be subject to acceptance by the Competent Authority.

- (2) Machinery and fuel tank spaces shall be separate from passenger spaces.
- (3) Bulkheads between machinery spaces and passenger spaces shall be made of incombustible materials accepted by the Competent Authority.

For the following spaces, minimum integrity against fire shall be effected with bulkheads in accordance with Table III 27(3). Reference to A-30, A-60 and B-30 refers to insulation achieved by the corresponding degree of protection for steel bulkhead or deck in accordance with the SOLAS Regulations. The installation shall be effected within the main engine or other machinery spaces, fuel tank, galley, steering, accumulators and electric switchboard panel spaces.

Table III 27(3) – MINIMUM INTEGRITY AGAINST FIRE

Category	1	2	3
1	A-30	A-30	A-60
2		A-30	A-60
3			B-30

where:

1:main engine, fuel tanks, galley spaces;

- 2:steering, other machinery, accumulators, electric switchboard panel spaces;
- 3:passenger spaces.

(4) Combustible materials shall be kept away from heated surfaces.

(5) Heated surfaces shall be insulated.

(6) Storage of paint, or other combustible materials not necessary for the normal vessel operation, is prohibited.

(7) Garbage receptacles shall be constructed of incombustible materials and shall not have openings at the side, or bottom.

(8) Electrical equipment and switchboards shall be protected from water or liquid fuel. Fuel hoses and piping shall be installed away from heat sources. Internal combustion engine, boiler or stove exhaust piping shall be insulated and installed away from combustible materials.

**28.**-(1) In decked vessels, enclosed spaces accessible to passengers or the crew shall have at least two means of escape at opposite ends and in an appropriate distance between them. The Competent Authority may exempt spaces which, due to their size, or use, is impracticable or illogical to have a second means of

Means of escape. escape.

	(2) The dimensions and number of means of escape shall be sufficient for the safe and rapid evacuation of all persons on board wearing life-jackets, from the space they serve .
	(3) The width of doors and means of escape shall not be less than 80 centimeters and in the case of spaces serving more than 50 persons, not less than 120 centimeters.
	Vessels of less than 12 meters in length shall have two means of escape of minimum width 60 centimeters and 45, respectively.
	(4) Means of escape shall open easily and rapidly, by only one person, from either side towards the escape direction, in both light and dark conditions and shall be of adequate strength.
Ventilation.	<b>29</b> (1) Enclosed or partially enclosed spaces shall be adequately ventilated.
	(2) There shall not be any fuel piping and other foreign materials in ventilation ducts.
	(3) Each power ventilation system shall be capable of being shut down from the steering position.
	(4) Spaces containing batteries shall be sufficiently ventilated.
Windows and sidescuttles.	<b>30.</b> -(1) Glass and other glazing material used in passenger spaces shall not break into fragments if fractured.
	(2) Windows, side scuttles and their means of attachment to the hull or superstructure shall withstand the maximum expected load from wind and wave conditions.
	(3) The size of openings at the operating station shall be sufficient for good visibility. Glass shall allow transmission of a minimum of 70% of the daylight.
Anchoring and Mooring arrangements.	<b>31.</b> -(1) Vessels shall have equipment and arrangements to provide for safe anchorage and mooring, sufficient for their size and navigating area.
	(2) Mooring lines shall have sufficient strength and shall be kept in good condition.
	(3) Minimum anchor, chain and cable requirements are provided in Table III 31(3) as per the equipment numeral of the vessel.
	Equipment numeral, EN, shall be calculated using the formula:
	$EN = 0.25LBD + \Sigma \{0.15lbh\}$
	<ul> <li>where:</li> <li>L: vessel's length overall,</li> <li>B: the maximum hull breadth,</li> <li>D: hull height amidships from the upper side of the keel to the edge of the main deck at side,</li> </ul>

l, b, h: the length, breadth and height of each superstructure, all dimensions in meters. In case of more than one superstructure, these shall be summed separately.

		Cable			
	Anchor		Diamet	er (cm)	
Equipment	mass	Total	Chain	Wire	Synthetic
numeral	(Kg)	length(m)	Chann	rope	rope
10	22	55	6	6	9
20	30	55	8	8	11
40	40	100	9	9	12
60	50	110	10	10	15
80	70	120	11	11	18
100	90	140	12	12	18
140	110	150	12	12	-
180	130	150	12	12	-
220	150	150	12	12	-

Table III 31(3) – MINIMUM REQUIREMENTS FOR EQUIPMENT

If EN is different from the values in Table III 31(3), the next greater value shall be taken. If beyond extreme values, the closest EN shall be used. If wire rope or synthetic rope is used, the anchor shall be connected with a chain of 120 centimeters minimum length.

**32.** -(1) Minimum permitted freeboard for vessels not referred to in paragraphs (2) and (3) shall be taken as the greater of the freeboards determined by the structure, intact stability and damage stability studies and shall not be taken as less than -

- (a) the freeboard determined with linear interpolation between 300 and 750 millimeters for vessels of 6 meters or more but less than 18 meters in length;
- (b) 750 millimeters for vessels of 18 meters or more in length.

(2) Minimum permitted freeboard for open boats shall be taken as the greater of the freeboards determined by the structure, intact stability and damage stability studies and shall not be taken as less than -

- (a) the freeboard determined with linear interpolation between 400 and 800 millimeters for vessels of 6 meters or more but less than 18 meters in length;
- (b) 800 millimeters for vessels of 18 meters or more in length.

(3) Minimum permitted freeboard for sailing vessels shall be taken as the greater of the freeboards determined by the structure, intact stability and damage stability studies.

Freeboard.

(4) Freeboard shall be measured from the deck line, the upper side of which shall pass through the point where the continuation outwards of the upper surface of the main deck intersects the outer surface of the shell.

On an open boat, the upper side of the gunwale shall be taken as the deck line.

Freeboard shall be marked with a load line, the upper side of which corresponds to the minimum permitted freeboard.

The deck line and load line shall be marked on each side of the vessel amidships, width shall be 25 millimeters, length 300 millimeters and shall be painted on a dark ground in white or yellow colour, or painted in black colour on a light ground.

**33.** -(1) The steering position shall provide the skipper with sufficient visibility for all operations, with a minimum visibility of 100 degrees port and starboard of the longitudinal axis of the vessel.

(2) For coating surfaces of structural members on the external side of wooden vessels with fiberglass, the condition of timber and fastening means before application shall be taken into account. The suggested method and the circumstances of application shall be subject to acceptance by the Competent Authority.

Surfaces of structural members in the internal side of wooden vessels shall not be coated with fiberglass.

(3) The material and method of installation and tightness of glass on the bottom or other parts of the hull shall be subject to acceptance by the Competent Authority.

(4) The floors in machinery and fuel tank spaces shall have non-slippery characteristics.

# PART IV : INTACT STABILITY – DRAINAGE

**34.**-(1) The intact stability of a vessel shall be determined with a stability study.

Metacentric height and intact stability study.

Other technical

provisions.

Stability study shall not be required when the relation between the vessel's length and number of persons on board is limited to the figures in the first and second column of Table IV 34(1).

Length L	Number of persons on board N	Number of person on board with Simplified Stability Test Nsst
6	6	12
8	7	16
10	8	20

Table IV 34(1) – LENGTH AND PERSONS ON BOARD

22

15	12	30
18	16	36

where, L: the vessel length in meters, and N: the number of persons on board.

(2) Vessels of less than 18 meters in length with only one deck above the watertight bulkhead deck may, alternatively, undergo a simplified stability test in accordance with paragraph (3) or a stability study in accordance with the provisions of Resolution A. 749(18) of the International Maritime Organization.

(3) When the number of persons on board is determined with the simplified stability test, the maximum number of persons on board shall be limited to the figures in the third column of Table IV34(1).

For the conduct of the simplified stability test, the provisions of Resolution A.749(18) of the International Maritime Organization shall be observed.

The persons on board shall be positioned symmetrically and initial freeboard,  $f_0$  shall be taken on both sides of the vessel amidships, without initial list.

Subsequently the persons on board shall be crowded to one of the vessel's sides, the resulting freeboards shall be measured and the following inequalities shall be satisfied:

$$\label{eq:fy-fx} \begin{split} f_y \text{-} & f_x \leq 0,176B \\ f_x \geq f_0/2. \end{split}$$

where:

 $f_x$ : freeboard at the side the passengers were crowded,

f<sub>y</sub>: freeboard on the other side and,

B : breadth of the vessel amidships.

A Surveyor shall supervise the simplified stability test.

(4) Vessels of 18 meters or more in length carrying more than 36 passengers and vessels of less than 18 meters in length with more than one deck above the watertight bulkhead deck, shall be subject to a stability study in accordance with the provisions of Resolution A.749(18) of the International Maritime Organization.

(5) Coastal passenger vessels shall not be verified for the wind criterion as far as intact stability is concerned.

**35.** -(1) Sailing vessels shall be subject to a simplified stability test, in accordance with preparation and method accepted by the Competent Authority.

(2) A study showing compliance with intact stability standards provided in paragraphs (3) and (4) of this Regulation shall be submitted by an Engineer for the following sailing vessels:

(a) Vessels on which downflooding occurs at  $60^{\circ}$  or less;

(b) vessels which shall carry 50 or more passengers;

(c) vessels engaged in night voyages;

Intact stability of sailing vessels.

- (d) small passenger vessels;
- (e) vessels with a cockpit longer than 1/5 of the length-over-deck of the vessel;
- (f) vessels with unusual hull form, including vessels without a watertight deck, such as open boats and vessels with unusual proportions or unusual rigging.

(3) The vessels referred to in paragraphs (2) and (5) shall have a metacentric height to satisfy, at all loading and operation conditions, the inequality

 $GM \ge P A H / \Delta tan\Omega$ 

where:

GM : the metacentric height of the vessel,

 $P = a + (L_{bp} / 1309)^2$  tonne / square meter, where a, a constant with a value of 0,036 for coastal passenger vessels and 0,055 for small passenger vessels and  $L_{bp}$  the length between perpendiculars,

A: the projected lateral area, in square meters, of the portion of the vessel above the waterline,

H: the vertical distance, in meters, from the center of A to 1/2 the draft,

 $\Delta$ : the vessel's displacement, in tonne,

 $\Omega$ : the lesser of either, 14 degrees heel, or the angle of heel in degrees at which  $\frac{1}{2}$  the freeboard to the deck edge is immersed. For sailing yachts,  $\Omega$  shall be taken as the lesser of either 14 degrees or the angle of heels in degrees to the deck edge. In both cases, the deck edge is to be taken at the intersection of the sideshell and the uppermost continuous deck below which the sideshell is weathertight.

(4) Sailing vessels referred to in paragraph (2) shall meet the following requirements:

(a) Righting arm (GZ) shall be positive in all conditions of loading and operation:

(i) from 0 to at least 70 degrees of heel for coastal passenger vessels,

(ii) from 0 to at least 90 degrees for small passenger vessels.

(b) The following inequalities shall be satisfied:

```
\begin{array}{l} 1000 \ \Delta \ HZa \ / \ A \ H \geq X \\ 1000 \ \Delta \ HZb \ / \ A \ H \geq Y \\ 1000 \ \Delta \ HZc \ / \ A \ H \geq Z \end{array}
```

where:

 $\Delta$ : the displacement of the vessel in tonne,

HZa, HZb, HZc : heeling arms taken from curves plotted with the method described below :

A: the projected lateral area, in square meters, of the portion of the vessel above the waterline, computed with all sail set and trimmed flat.

Parachute type spinnakers shall be included regardless of overlap. H: the vertical distance in meters, from the center of A to ½ the draft,

X,Y,Z : constants with minimum values to be taken from Table IV35(4):

Minimum value in tonne/m <sup>2</sup>	Coastal passenger vessels	Small passenger vessels
Х	11	16,5

Y	12	19
Ζ	14	21

HZa, HZb  $\kappa\alpha\iota$  HZc shall be determined for all loading and operation conditions as below :

In the righting arm (GZ) curve of the vessel, if the angle at which the maximum arm occurs is less than 35 degrees, the curve shall be truncated with a horizontal line intersecting the GZ curve at the point corresponding to 35 degrees.

Righting arm curves (GZ) and heeling arm curves (HZ) shall be plotted with common vertical axis and the following conditions shall be satisfied:

- (i) In the curve HZ = HZa  $\cos^2\Omega$ , where HZ the heeling arm, HZa the heeling arm at 0 degrees, and  $\Omega$  the heeling angle: the two curves must intercept at the angle of heel corresponding to the angle at which deck immersion first occurs;
- (ii) in the curve  $HZ = HZb \cos^2\Omega$ , where HZ the heeling arm, HZb the heeling arm at 0 degrees, and  $\Omega$  the angle of heel: the area under the assumed heeling arm curve between 0 degrees and the downflooding angle or 60 degrees, whichever is less, must be equal to the area under the righting arm curve between the same limiting angles;
- (iii) in the curve HZ = HZc  $\cos^2\Omega$ , where HZ the heeling arm, HZc the heeling arm at 0 degrees and  $\Omega$  the angle of heel: the area under the assumed heeling arm curve between 0 and 90 degrees must be equal to -

- the area under the righting arm curve between 0 degrees and 90 degrees if the righting arms are positive to an angle less than or equal to 90 degrees; or

- the largest angle corresponding to a positive righting arm but no less than 120 degrees if the righting arms are positive to an angle greater than 90 degrees.

(5) Sailing catamarans shall meet the requirements for metacentric height in paragraph (3) and the inequality

0,1  $\Delta$  B / As Hc  $\geq$  X

where:

 $\Delta$ : the displacement of the vessel in tonne,

B: distance between hull centerlines, in meters,

As: maximum sail area, in square meters,

Hc: the height of the center of effort of the sail area above the deck, in meters; and

X: a constant of 4,88 Kilogram / square meter for coastal passenger vessels and 7,32 Kilogram / square meter for small passenger vessels.

(6) Sailing vessels not mentioned in paragraphs (2) and (5) which are coastal passenger vessels, shall have a cockpit allowing free drainage of water.

Intact stability Booklet. **36.** -(1) The skipper shall be supplied with an intact stability Booklet containing the necessary data, to provide sufficient stability at the intact condition.

	(2)(a) The Booklet shall contain the stability data, the conditions and assumptions of the study, the capabilities and limitations of the vessel, information and instructions for her safe operation and examples of practical application;
	(b) the Booklet shall contain at least three conditions with 10%, 50%, and 100% of the consumables the vessel may carry.
	(3) The Booklet shall be drafted in a language understood by the skipper.
Drainage of water.	<b>37</b> (1) Decks shall be kept watertight and shall allow for easy drainage.
.,	(2) The cockpit shall allow for free drainage.
	(3) In open boats, water shall drain to the bilge.
Cargo and ballast.	<b>38.</b> -(1) Cargo, if any, shall be accounted for in the intact stability calculations.
	(2) Precautions for the safe loading, securing and unloading of cargo shall be taken for the prevention of accidents.
	(3) Solid permanent ballast, where installed, shall be secured in such a way to avoid movement and its position shall not be changed without prior approval from the Competent Authority.
	(4) Installation of permanent sea or fresh water ballast shall be subject to approval by the Competent Authority.
	PART V. DAMAGE STABILITY
Interpretation.	<b>39.</b> For the purposes of this Part:
	"breadth of the vessel" means the extreme width from outside of frame to outside of frame at or below the deepest subdivision load line;
	"draft" means the vertical distance from the upper side of the keel to the loaded subdivision waterline amidships;
	"machinery space" means a space extending from the upper side of the keel to the margin line and between the extreme main transverse watertight bulkheads bounding the spaces containing the main and auxiliary propulsion machinery;
	"margin line" means a line drawn at least 76 mm below the upper surface of the bulkhead deck at side;
	"passenger spaces" means accommodation spaces designated for the use of passengers;
	"permeability" of a space means the percentage of that space which can be occupied by water. The volume of a space which extends above the margin line shall be measured only to the height of that line;
	"subdivision length" means the length of the vessel measured between perpendiculars taken at the forwardmost and aftermost points on the waterline corresponding to the deepest operating draft.
	26

Damage **40.-**(1) The machinery space of open boats shall be divided from other spaces by a stability transverse watertight bulkhead to the top of the gunwale. of open boats. (2) A flooding test shall be required for the following open boats: - Open boats with freeboard  $f < 4.5\Delta$  / LB with minimum value 500 millimeters, where f the freeboard in meters,  $\Delta$  the displacement in tonnes. L the overall length, and B the breadth in meters, - Sailing vessels with open deck. The flooding test shall prove that -(a) water does not enter the boat when a moment of 200N Newton meter, with a minimum value of 400 Newton, is applied at the upper side of the gunwale, at the position of maximum breadth, where N the number of passengers; (b) the boat does not sink when flooded to the upper side of the gunwale. Watertight **41.** Vessels of less than 18 meters in length, carrying 50 or more passengers, and subdivision. vessels of 18 meters in length or more shall be subdivided in watertight compartments, with watertight bulkheads extending to the bulkhead deck. The length of watertight compartments shall be determined according to the special requirements given below. Any other part of the internal construction affecting the efficiency of subdivision shall be made watertight. Floodable 42. -(1) The floodable length at a given point is the maximum portion of the and permissible length of the vessel, having its center at the point in question, which can be length of flooded under the conditions set forth in paragraph (3) of Regulation 43 without compartments. the vessel being submerged beyond the margin line. (2) In the case of a vessel not having a continuous bulkhead deck, the floodable length at any point may be determined to an assumed continuous margin line, which at no point shall be less than 76 mm below the top of the deck -at sideto which the watertight bulkheads concerned and the shell are kept watertight. (3) Where a portion of an assumed margin line is appreciably below the deck to which watertight bulkheads are carried, the Competent Authority may permit a

are above the margin line and immediately under the higher deck.(4) The maximum permissible length of a compartment having its center at any point in the ship's length is obtained from the floodable length by multiplying

limited relaxation in the watertightness of those portions of the bulkheads which

**43.** -(1) Sufficient intact stability shall be provided in all service conditions so as to enable the vessel to withstand the final stage of flooding of any one main compartment that is required to be within the floodable length. Cargo, if any, shall be taken into account in the calculations.

accou

Damage stability.

the latter by the factor of subdivision to be taken as 1,0.

(2) The requirements of paragraph (1) shall be determined by calculations, in accordance with paragraphs (3), (4) and (6). The proportions and design characteristics of the vessel and the arrangement and configuration of the damaged compartments shall be accounted for in the calculations. In making these calculations the vessel is assumed to be in the worst anticipated service conditions as regards stability.

Where it is proposed to fit decks, inner skins or longitudinal bulkheads of sufficient tightness to seriously restrict the ingress of water, such restrictions shall be accounted for in the calculations.

The stability required in the final condition after damage, and after equalization, where provided, shall be determined as follows:

The positive residual righting lever curve shall have a minimum range of 15 degrees beyond the angle of equilibrium.

The area under the righting lever curve shall be at least 0.015 meter-radians, measured from the angle of equilibrium to the lesser of -

- (a) the angle at which progressive flooding occurs;
- (b) 22 degrees (one-compartment flooding), measured from the upright.

A residual righting lever is to be obtained within the range of positive stability, taking into account the heeling moment resulting from -

(a) the crowding of all passengers towards one side;

(b) due to wind pressure as calculated by the formula:

 $GZ \ge M / \Delta + 0.04$  with a least value of 0.10 meters where:

GZ: the residual righting lever in meters,

M: the heeling moment in kilo Newton meters, and

 $\Delta$ : the displacement in tonnes.

For the purpose of calculating heeling moments, the following assumptions shall be made:

(a) Moments due to crowding of passengers -

- (i) four persons per square metre,
- (ii) a mass of 75 kg for each passenger,
- (iii) passengers shall be distributed on available deck areas towards one side of the vessel on the decks where muster stations are located and in such a way that they produce the most adverse heeling moment;
- (b) for the moment due to wind pressure, a pressure of 80 Newton / square meter shall be taken, and
  - (i) the area applicable shall be the projected lateral area of the vessel above the waterline corresponding to the intact condition,

(ii) the moment arm shall be the vertical distance from a point at  $\frac{1}{2}$  the mean draft corresponding to the intact condition, to the centre of the lateral area.

In case of significant progressive flooding resulting to rapid decrease of the righting lever by 0,04 meters or more, the righting lever curve shall be considered as limited to the progressive flooding angle and the minimum range and area shall be measured at that angle.

Where progressive flooding is limited, does not decrease, and results to slow decrease of the righting lever to less than 0,04 meters, the remainder of the curve shall be reduced on the assumption that the progressively flooded space is flooded in this mode from the initial stage.

In intermediate stages of flooding, the maximum righting lever shall be at least 0,05 meters and the range of the positive righting levers shall be at least 5 degrees. In all cases, only one damage to the vessel and only one free surface shall be considered.

(3) In making damage stability calculations, volume and surface permeability shall be taken as –

SPACES	Permeability
Spaces occupied by accommodation or provisions	95%
Spaces occupied by machinery	85%
Spaces intended for liquids	0 or 95% *

## TABLE V43(3) - VOLUME AND SURFACE PERMEABILITIES

\* whichever results in the more severe requirements.

Higher surface permeabilities are to be assumed in respect of spaces which, in the vicinity of the damage waterplane, contain no substantial quantity of accommodation or machinery and spaces which are not generally occupied by any substantial quantity of cargo or stores. The Competent Authority may approve lesser values for permeability if that results from excluding volume which can not be flooded.

- (4) Assumed extend of damage shall be the following:
  - (a) Longitudinal extent: The lesser of 3,0 meters plus 3% of the length of the vessel, or 11 meters, or 15% of the subdivision length;
  - (b) transverse extend: (measured inboard from the vessel's side, at right angles to the centreline at the level of the deepest subdivision load line): a distance of 1/5 of the breadth of the vessel; and
  - (c) vertical extend: from the upper side of the keel upwards without limit.

If any damage of lesser extent than that indicated in subparagraphs (a), (b) and (c) would result in a more severe condition regarding heel or loss of metacentric height, such damage shall be assumed in the calculations.

(5) Unsymmetrical flooding is to be kept to a minimum consistent with efficient arrangements. Where it is necessary to correct large angles of heel, the means adopted shall, where practicable, be self-acting. Where controls to cross-flooding fittings are provided they shall be operable from above the bulkhead deck.

The maximum angle of heel after flooding but before equalization shall not exceed 15 degrees. Where cross-flooding fittings are required the time for equalization shall not exceed 15 minutes.

(6) The final conditions of the vessel after damage and, in the case of unsymmetrical flooding, after equalization measures have been taken shall be as follows:

- (a) In the case of symmetrical flooding, the remaining residual metacentric height shall be positive and at least 50 millimetres as calculated by the constant displacement method;
- (b) in the case of unsymmetrical flooding, the angle of heel for onecompartment flooding shall not exceed 12 degrees; and
- (c) in no case shall the margin line be submerged in the final stage of flooding. If it is considered that the margin line may become submerged during an intermediate stage of flooding, the Competent Authority may require such investigations and arrangements as it considers necessary for the safety of the vessel.

(7) Each vessel shall have scales of drafts marked clearly at the bow and stern, on a dark ground painted in white or yellow or on a light ground painted in black.

**44.-**(1) This Regulation applies to existing vessels of 30 meters in length or more and to new vessels. Paragraph (3) applies to all vessels.

(2) Vessels shall be fitted with a watertight collision bulkhead. The watertight collision bulkhead shall be located at a distance from the forward perpendicular of not less than 5% of the subdivision length of the vessel and not more than 3 metres plus 5% of the subdivision length of the vessel.

(3) Vessels shall be fitted with a bulkhead dividing the machinery space from the passenger spaces forward and aft. The bulkhead shall be watertight up to the watertight bulkhead deck.

(4) Stern tubes shall be enclosed in watertight spaces. The stern gland shall be situated in a watertight shaft tunnel or other watertight space separate from the stern tube compartment and of such volume that, if flooded by leakage through the stern gland, the margin line will not be submerged.

**45.** A double bottom shall be fitted extending from the forepeak watertight bulkhead to the afterpeak bulkhead as far as it is practicable and compatible with the design and proper operation of the vessel.

**46.** -(1) In order that the required degree of a subdivision shall be maintained, a load line corresponding to the approved subdivision draft shall be assigned.

(2) The freeboard corresponding to the load line shall be measured from the point and deck line provided in Regulation 32.

End bulkheads and machinery space bulkheads.

Double bottom.

Determination of subdivision load lines.

Construction and initial testing of watertight bulkheads, etc. **47.** -(1) Each watertight subdivision bulkhead, whether transverse or longitudinal, shall be constructed in such a manner so as to be capable of supporting, with a proper margin of resistance, the pressure due to the maximum head of water which it might have to sustain in the event of damage to the vessel, but at least, the pressure due to a head of water up to the margin line.

The construction of bulkheads shall fulfil the requirements of standards acceptable by the Competent Authority.

(2) Steps and recesses in bulkheads shall be watertight and as strong as the bulkhead at the place where each occurs.

Where frames or beams pass through a watertight deck or bulkhead, such deck or bulkhead shall be made structurally watertight.

(3) Testing main compartments by filling them with water is not compulsory. When testing by filling with water is not carried out, a hose test is compulsory. This test shall be carried out in the most advanced stage of the fitting out of the vessel. In any case, a thorough inspection of the watertight bulkheads shall be carried out.

(4) The forepeak, double bottoms (including duct keels) and inner skins shall be tested with water to a head corresponding to the requirements of paragraph (1).

(5) Tanks intended to hold liquids, and which form part of the subdivision of the vessel, shall be tested for tightness with water to a head -

- (a) up to the deepest subdivision load line; or
- (b) corresponding to 2/3 the depth from the top of the keel to the margin line in way of the tanks,

whichever is greater, provided that in no case the test head shall be less than 0,90 meters above the top of the tank. If the test with water is not practicable, an air pressure test with not more than 0,14 bar air pressure may be accepted.

(6) The tests referred to in paragraph (4) and (5) are for the purpose of ensuring that the subdivision structural arrangements are watertight and are not to be regarded as a test of the fitness of any compartments for the storage of oil fuel or for other special purposes for which a test of a superior character may be required depending on the height to which the liquid has access in the tank or its connections.

**48.** The number of openings in watertight bulkheads shall be reduced to the minimum compatible with the design and proper operation of the vessel. Satisfactory means shall be provided for closing these openings.

Openings in watertight bulkheads.

Openings in the shell plating below the margin line. **49.** -(1) The number of openings in the shell plating shall be reduced to the minimum compatible with the design and proper working of the vessel.

(2) The arrangement and efficiency of the means for closing any opening in the shell plating shall be consistent with its intended purpose and the position in which it is fitted.

(3) The number of scuppers, sanitary discharges and other similar openings in the shell plating shall be reduced to a minimum either by making each discharge serve as many as possible of the sanitary and other pipes, or by any other satisfactory manner.

(4) All inlets and discharges in the shell plating shall be fitted with efficient and accessible arrangements for preventing the accidental ingress of water into the vessel.

(5) Machinery space main and auxiliary sea inlets and discharges in connection with the operation of machinery shall be fitted with readily accessible valves between the pipes and the shell plating or between the pipes and fabricated boxes attached to the shell plating. The valves may be controlled locally and shall be provided with indicators showing whether they are open or closed.

(6) All shell fittings and valves required by this Regulation shall be of steel, bronze or other ductile material acceptable by the Competent Authority. Valves of ordinary cast iron or similar material are not acceptable. All pipes to which this Regulation refers shall be of steel or other equivalent material to the satisfaction of the Competent Authority.

**50.**-(1) All reasonable and practicable measures shall be taken to limit the ingress and spread of water above the watertight bulkhead deck.

For existing vessels of 30 meters or more in length and for new vessels, such measures shall be mandatory and may include partial watertight bulkheads and webs. When partial watertight bulkheads and webs are fitted on the bulkheads deck, above or in the immediate vicinity of main subdivision bulkheads, they shall have watertight shell and bulkhead deck connections so as to restrict the ingress of water along the deck when the vessel is in a heeled damaged condition. Where the partial watertight bulkhead does not line up with the bulkhead below, the bulkhead deck between, shall be made effectively watertight.

(2) The bulkhead deck or a deck above it shall be weathertight. All openings in the exposed weather deck shall have coamings of ample height and strength and shall be provided with efficient means for rapidly closing them weathertight. Freeing ports, open rails and scuppers shall be fitted as necessary for rapidly clearing the weather deck of water under all weather conditions.

(3) Sidescuttles, gangway, cargo and coaling ports and other means for closing openings in the shell plating above the margin line shall be of efficient design and construction and of sufficient strength, having regard to the spaces in which they are fitted and their positions relative to the deepest subdivision load line.

(4) Efficient inside deadlights, so arranged that they can be easily and effectively closed and secured watertight, shall be provided for all sidescuttles to

Watertightness above the margin line. spaces below the first deck above the watertight bulkhead deck.

**51**.-(1) The skipper shall be supplied with a damage stability Booklet containing the necessary data to enable him to achieve sufficient stability in the intact condition, so that the vessel may cope with a damage. For vessels requiring cross-flooding, the skipper shall be informed of the stability assumptions on the basis of which heel calculations were carried out and shall be pre-warned that the vessel may be excessively heeled, if damaged in worse stability conditions (paragraphs (1), (2), (3) and (4) of Regulation 43).

(2) The damage stability Booklet shall contain suitable guidance for the use of the cross-flooding fittings (paragraph (5) of Regulation 43).

(3) The damage stability Booklet shall be drawn up in the Greek language and/or in a language understood by the skipper, except for internationally accepted symbols and abbreviations.

(4) For the skipper's guidance there shall be additional plans, indicating each for each deck and space the boundaries of watertight compartments, openings with means of closure, the position of the controls and the arrangements for the correction of any list due to flooding.

**52.** Special cases, assumptions and details concerning special subdivision rules, double bottoms, openings in watertight bulkheads including operation and operation circuits and openings in the shell below margin line shall be examined by the Competent Authority on the basis of the SOLAS requirements.

**53.** Alternative studies and methods to provide for stability in damaged condition shall be examined by the Competent Authority individually.

### PART VI: MACHINERY.

**54.**-(1) The type and design of machinery shall be suitable for safe operation in the conditions of the performed voyages and shall protect the passengers and crew from the risk of accidents.

(2) Propulsion engines, auxiliary machinery and equipment shall be constructed in accordance with current requirements of recognized organizations or technical standards accepted by the Competent Authority.

(3) Machinery systems and layout shall be installed as per manufacturer's instructions, with high level of practice and materials.

(4) Alternatively to the requirements of the present Part, vessels of less than 12 meters in length, carrying not more than 15 passengers, may meet the requirements of recognized organizations or technical standards accepted by the Competent Authority for vessels of similar size in similar navigating conditions.

**55.** Regulations 56, 57, 60 and 61 refer to propulsion and auxiliary internal combustion engine installations consuming liquid fuel, except petrol or other liquid fuel of 43° Celsius or lower flush point or gas fuel.

Special cases, conditions and installation details.

Damage

Stability

Booklet

Control

plans.

and damage

Alternative studies and methods for providing stability in damaged condition.

General Requirements for machinery.

Engine type and fuel. Fuel tanks and fuel piping.

**56.**-(1) Diesel oil fuel tanks shall not be constructed- build in the hull unless the hull is made of steel, aluminum or fiber reinforced plastic, under conditions to be examined by the Competent Authority.

During the initial survey for certification, build in fuel tanks shall be subjected to a hydrostatic pressure test not less than 0,35 bar test pressure, or the maximum pressure head to which they shall be subjected during service if this is greater.

(2) Independent fuel tanks:

Material and plate thickness shall be subject to approval by the Competent Authority.

Materials used for fiber reinforced plastic diesel oil fuel tanks shall be fire retardant.

Openings shall only be allowed on the topmost surfaces except for openings with threaded plugs for tank cleaning or openings for gauges.

Joints for fittings shall be welded or brazed or made with other methods depending on the materials to be jointed. Lap joints may not be used.

Tanks with any horizontal dimension exceeding 75 centimeters shall have internal baffles.

Iron or steel diesel oil fuel tanks shall not be galvanized internally.

Tanks shall have openings for internal inspection, shall be sufficiently supported and electrically bonded to a common ground.

During the initial survey, build in fuel tanks shall be subjected to a hydrostatic pressure test not less than 0,35 bar test pressure, or  $1\frac{1}{2}$  times the maximum pressure head to which they shall be subjected during service if this is greater.

Tanks shall have fuel gauges.

Tanks shall have vent pipes for sufficient ventilation lead to an open space and fitted with flame screens of corrosion resistant wire of at least 30x30 mesh.

(3) Fuel piping:

Fuel piping materials shall be subject to approval by the Competent Authority. Galvanized piping is not permitted.

Diesel oil piping may be connected to a fuel tank at or near the bottom of the tank.

Fuel piping installations shall be accessible, protected from mechanical injury and effectively secured against vibration.

At least one shutoff valve shall be fitted in the fuel supply lines, one at the tank connection, and one at the engine end. The shutoff valve at the tank shall be operable (manually) from outside the compartment in which the valve is located. Electric valves are not permitted. Shutoff valve at the engine side may be dispensed with, when the length of the piping from tank to engine does not exceed 3 meters.

**57.** -(1) Ventilation of spaces containing diesel engines:

Ventilation.

Spaces containing diesel engines shall be fitted with ducts, ventilators, louvers, or other means to provide sufficient air for the normal operation of engines as per manufacturer's instructions.

At least two ducts shall, in addition, provide natural or mechanical supply and exhaust ventilation for renewal of the air in each space. Total inlet and outlet area of each duct shall be computed with the formula  $A \ge 40V$ , where A the inlet or exhaust area in square centimeters and V, the volume of the ventilated area in cubic meters, with least value 60 square centimeters.

Ventilators shall be constructed of solid incombustible material.

Supply ducts shall be provided with a cowl of free area not less than twice the required duct area. When cowls are screened, the mouth area shall be increased to compensate for the area of the screen wire.

Dampers shall not be fitted in supply ducts.

Duct openings shall not be located where the supply of air is obstructed, adjacent to possible sources of vapor ignition or where exhaust air may be taken into a supply duct.

Supply and exhaust ventilators shall be provided with means of closure.

(2) Ventilation of spaces containing diesel fuel tanks:

Spaces of 14 cubic meters or more in volume, containing diesel fuel tanks, shall have gooseneck vents of 65 millimeters minimum diameter.

Spaces of less than 14 cubic meters in volume, containing diesel fuel tanks, shall have gooseneck vents of 40 millimeters minimum diameter.

Ventilation openings shall not be located adjacent to possible sources of vapor ignition.

*Bilge systems.* **58.-**(1) The Competent Authority may exempt from the requirements of this Regulation, vessels with subdivision providing a high degree of protection against flooding if proved that the safety of the vessel is not impaired.

- (2) Vessels shall meet the following general requirements:
  - (a) Individual bilge piping and suctions shall be provided for each watertight compartment;
  - (b) bilge piping in vessels of less than 18 meters in length, shall not be less than 25 millimeters nominal diameter. Bilge piping in vessels of 18 meters in length or more shall not be less than 40 millimeters nominal diameter;
  - (c) bilge suctions shall be fitted with strainers of an open area not less than 3 times the area of the bilge pipe;

- (d) when a bilge pump serves more than one space, suction piping shall be led to a central control point or manifold and every bilge line shall be provided with a screw-down valve at some accessible point. Screwdown valves at a control point or manifold, shall be positive ;
- (e) discharge of bilge water from machinery spaces -
  - (i) bilge piping shall be led to the oily residues tank provided in paragraph (3) of Regulation 17,
  - (ii) an additional line in the engine room shall be led directly to the sea and shall only be used in case the space is flooded,
  - (iii) bilge piping piercing the collision bulkhead shall be fitted with a screw-down valve on the forward side of the bulkhead, operable from the deck. If readily accessible under service conditions, a screw-down valve without a reach-rod may be fitted to the line on the after side of the collision bulkhead.
- (3) Fixed bilge pumps -
  - (a) vessels shall have fixed motor (engine) or electric bilge pumps at minimum numbers and capacities in accordance with Table VI58 (3):

Number of persons on board (N)	Vessel's length (L)	Number of fixed bilge pumps	Capacity of each pump (lpm)
Any	$L \ge 18$	1 pump 1 pump	360 240
$N \ge 50$	18> L≥12	1 pump 1 pump	240 180
N < 50	18> L ≥12	1 pump	180
N < 50	L < 12	1 pump	120

# Table VI58(3) : VESSEL'S LENGTH, PERSONS ON BOARD AND CAPACITY OF FIXED BILGE PUMPS.

where, N: number of persons on board, L: vessel's length in meters, lpm: liters/minute;

- (b) where flexible tubes or hoses are used for discharge lines, these shall be resistant to salt water, petroleum, heat and vibrations,
- (c) where two fixed pumps are required, these shall be driven by different sources of power and one of them shall be installed at a height no less than the deepest load line of the vessel;
- (d) fixed bilge pumps shall be self-priming. They may be driven off the main engine or other source of power;

- (e) a system of submersible electric bilge pumps may substitute the fixed pump required in Table VI58(3) on vessels of less than 12 meters in length, provided that each such pump of the system shall dewater only one watertight compartment, shall not be portable, shall be provided with a filter that can be cleaned without removal, the discharge line shall be suitably supported, the opening in the hull for the pump discharge shall be placed as high above the waterline as possible, a positive shutoff valve shall be installed at the hull penetration and the capacity of the electric circuit with cables and batteries is sufficient for simultaneous operation of all bilge pumps with minimum capacity equal to that of the fixed pump it substitutes;
- (f) for vessels of 12 meters or more in length, the above arrangement shall apply for only one of the two required pumps,
- (g) catamaran vessels shall be individually considered and the bilge arrangements shall be subject to approval by the Competent Authority.
- (4) Portable bilge pump:-
- (a) vessels shall have a portable motor (engine) or electric bilge pump of capacity as provided in Table VI58(4):

PORTABLE BILGE PUMPS						
Number of persons on board	Vessel's length (L)	Capacity of portable bilge pump (lpm)				
(N) Any	L≥18	360				
$N \ge 50$	18> L ≥12	240				
N < 50	18> L ≥12	180				
N < 50	L < 12	80				

Table VI58 (4) VESSEL'S LENGTH, PERSONS ON BOARD AND CAPACITY OF PORTABLE BILGE PUMPS

where N: the number of persons on board, L: vessel's length in meters and lpm: liters per minute;

(b) the portable pump shall be self-priming, and shall be kept in a space of the main deck where its rapid operation for pumping water out of the engine room, or other space is not impaired.

Steering systems.

- **59.** -(1) Main steering system General requirements:
  - (a) Vessels shall be provided with a main steering gear of adequate strength, capable of steering the vessel at all speeds, designed for maximum astern speed without being damaged and capable of moving the rudder from 35 degrees on one side to 30 degrees on the other side in not more than 28 seconds with the vessel moving ahead at the maximum service speed;
  - (b) control shall be provided from the steering position;

- (c) transfer from the main steering to the auxiliary means of steering shall be rapid;
- (d) steering position shall be arranged to permit the best possible all around vision and control of the voyage and movements of the vessel;
- (e) strong and effective rudder stops shall be provided.
- (2) Main steering system power driven:

Vessels with power driven steering gear shall satisfy the following requirements:

- (a) A rudder angle indicator at the steering position;
- (b) an arrangement to automatically resume operation when power is restored after a power failure;
- (c) a mechanism to center the rudder and steady in an emergency;
- (d) a limit switch to stop the steering gear before it reaches the rudder stops required by paragraph (1);
- (e) vessels of 18 meters in length or more, shall be provided with visual means, at the steering position, to indicate operation of the power units and a sign of instructions for the transfer from the main steering gear to the auxiliary means of steering, posted at the location where the transfer is carried out.

(3) Auxiliary means of steering -

Vessels shall be provided with an auxiliary means of steering.

Auxiliary means of steering shall be of adequate strength, capable of moving the rudder from 15 degrees on one side to 15 degrees on the other side in not more than 60 seconds with the vessel traveling at  $\frac{1}{2}$  the maximum service speed ahead or 7 knots, whichever is greater.

A hand tiller may, at the discretion of the Competent Authority, be accepted as an auxiliary means of steering.

An auxiliary means of steering is not required if the main steering gear consists of a rudder and hand tiller, or steering is effected by a change of setting of the propulsion unit.

*Piping standards.* **60.** The standards of fuel, firefighting, fire extinction gas, bilge, steering, propulsion and electric power generation piping, shall be subject to approval by the Competent Authority.

*Control systems.* **61.** -(1) The main and auxiliary systems necessary for the propulsion and safety of the vessel shall be provided with effective control systems.

(2) Propulsion engines :

Shutdown system of the propulsion engines shall be provided locally, and at the steering position.

Operation of propulsion engines shall be capable of being locally controlled.

A system of communication between steering position and engine room shall be provided when operation of propulsion engines may not be controlled from the steering position.

Propeller revolution indicator shall be provided at the steering position.

Internal combustion engines shall be provided with cooling water temperature and oil pressure indicators.

(3) The auxiliary means of steering location shall be provided with a system of communication with the steering position, except for vessels where, due to their arrangement, communication between steering position and auxiliary means of steering location may be vocally achieved.

(4) Operation control of the fixed bilge pumps shall be provided locally and at the steering position. For each pump, a light indicating operation shall be provided.

(5) Automatic alarm shall be given in case of a fault in an electric, pneumatic, or hydraulic, tele-control system.

## PART VII: ELECTRICAL INSTALLATION

**62.**-(1) The type and design of the electrical installations and equipment shall be suitable for safe operation in the conditions of the performed voyages and shall provide protection for the passengers and crew from the risk of accidents.

(2) Electric machinery, cables, and wires and electrical equipment shall be manufactured in accordance with current requirements of recognized organizations or technical standards accepted by the Competent Authority. Non-marine cables and wires installed prior to the date of entry into force of these Regulations<sup>4</sup> may be accepted if their rating and insulation is considered sufficient by the Competent Authority.

(3) Electrical installations and equipment shall provide protection to human life from electrical hazards including fire hazard and electric shock and shall minimize the accidental contact with energized parts and electrical ignition of flammable vapors.

(4) Electric machinery, cables, and wires and electrical equipment in general shall be installed as per manufacturer's instructions, with a high level of practice and material quality subject to acceptance by the Competent Authority.

(5) Alternatively to the requirements of this Part, vessels of less than 12 meters in length carrying not more than 15 passengers, may meet the requirements of recognized organizations or technical standards accepted by the Competent Authority for vessels of similar size in similar navigating conditions.

General electrical installations requirements.

 $<sup>^{4}</sup>$  <u>Editorial Note</u>: It is recalled that these Regulations came into force on their date of publication in the Official Gazette of the Republic , i.e. <u>on 19 July 2002</u>.

(6) Electrical equipment in machinery and other spaces exposed to moisture or water shall be constructed to provide protection against damage due to such exposure.

(7) Electrical equipment installed on decks shall be watertight.

(8) Electrical equipment exposed to corrosive environment shall be of suitable construction and corrosion resistant.

(9) Electrical equipment shall be suitable for the vessel's motions and vibrations due to external and internal conditions.

(10) Electrical equipment, including switches and fuses, shall be suitable for the voltage and current utilized.

(11) Electrical equipment powered by direct current shall be of configuration that will not permit improper connection.

(12) Electrical equipment in spaces containing paint or other flammable liquids shall be of an intrinsically safe type.

**63.** - (1) Generators and motors shall be installed higher than the bilges, in sufficiently ventilated and dry locations.

(2) Generators, motors and other machinery or arrangements that may cause sparks shall be installed as high above bilges as possible.

(3) Generators and motors shall be designed for an ambient temperature of  $50^{\circ}$  Celsius.

(4) Generators rated at 110 Volts or more shall be provided with a voltmeter and an ammeter. In addition, alternating current generators shall be provided with means of measuring frequency.

(5) Generators shall be protected by an overcurrent device, set value not exceeding 115% the generator full load rating.

**64.** -(1) Distribution panels and switchboards shall be installed higher than bilges, in sufficiently ventilated and dry locations, totally enclosed within a rigid shell, on the front side of which the distributed load voltage and current shall be inscribed.

(2) A label indicating the space or the machinery served shall be mounted for each switch.

(3) Non-conducting mats, of specifications acceptable by the Competent Authority, shall be provided on the deck in front of each switchboard, and on the rear, if accessible.

**65.** -(1) Cables and wires shall be of the marine type and their specifications acceptable by the Competent Authority.

Generators and motors.

Distribution panels.

Cables and wires.

(2) Cables and wires shall be installed with high level of professional practice and in a manner to avoid interference with radio reception and compass indication, damage due to weather and environment conditions, mechanical fatigue and accidents. (3) Cables and wires serving circuits listed in Regulation 68 shall not pass through high risk areas such as machinery spaces, fuel storage spaces and galleys. (4) Cables and wires serving duplicate equipment shall be in separate circuits to avoid destruction of both in case of accident. Batteries. 66. -(1) Spaces where batteries are charged shall be provided with sufficient natural or mechanical ventilation. (2) Batteries shall be installed high above bilges as practicable and kept secured against vessel movements due to external conditions. (3) Batteries shall be accessible for maintenance and removal. (4) Battery connections shall be made with permanent type connectors. (5) Battery shall be installed in resistant to corrosion by the electrolyte trays. (6) The charging system shall be provided with an ammeter. (7) Batteries used for engine starting shall be installed as close as possible to the engines served. Grounding. 67. -(1) Measures to avoid inefficient grounding and/or corrosion due to electrolysis shall be taken in order to protect human life, the vessel and the equipment. (2) The hull shall not carry current as a conductor, except if used for impressed current cathodic protection system and engine starting batteries. (3) Receptacle outlets for portable lamps, tools or other equipment or similar apparatus operating at 110 Volts, or more, shall have a grounding pole and a grounding conductor in the portable cord. (4) Non-metallic masts having lights shall be grounded. (5) All metallic enclosures and frames shall be grounded to the hull of metallic vessels. On non-metallic vessels, enclosures and frames shall be bonded together to a common ground. (6) Metallic enclosures and frames of instruments and secondary windings of transformers shall be grounded. (7) Radio equipment in non-metallic vessels shall be grounded to the common ground. Emergency 68. -(1) Vessels shall be provided with an independent emergency source of conditions. electrical power with a distribution panel, installed above the main deck, in a space without common boundaries with the engine room, the main source of electrical power, or the main distribution panel.

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(2) The independent emergency source of electrical power shall be activated by an automatic device and shall be capable of serving simultaneously the following loads for at least 3 hours: -

- general alarm
- radio equipment
- emergency lighting
- navigation equipment and navigation lights
- public address system
- fire fighting system
- fixed fire fighting system
- systems and means required in Part V
- bilge system
- steering system
- propulsion system
- fuel system
- other systems at the discretion of the Competent Authority

(3) The following spaces shall be served by emergency lighting:

- stations of passenger assembly
- escape voyages
- machinery spaces and independent emergency source of electrical power space
- steering position
- fire fighting positions

If the source of emergency lighting consists of more than one units, these sources shall be activated immediately upon failure of the main system, shall not be portable, shall be connected to an automatic charger and shall have sufficient capacity for two hours of continuous operation.

**69.** -(1) Lighting globes shall be in protective guards, or made of high strength material unless they are situated in accommodation, radio spaces, galley, or other spaces where they are not subject to damage.

Lighting globes installed in open non-protected spaces shall be of a watertight type acceptable to the Competent Authority.

## PART VIII : FIREFIGHTING EQUIPMENT

Firefighting equipment, manufacture, and construction.

Lights.

Fire pumps.

**70.** -(1) Fire fighting equipment shall be constructed and manufactured in accordance with requirements in force of recognized organizations or technical standards acceptable by the Competent Authority.

71.-(1) Fixed fire pump:-

(a) vessels of 18 meters in length or more, and vessels of less than 18 meters in length, with a carrying capacity of 50 or more passengers, shall have a fixed power driven self-priming fire pump to serve all vessel spaces, with sea-suction and connected with piping and valves, capable of supplying 2 water jets simultaneously. The pump shall be operated from the steering position and locally;

- (b) the pump shall have minimum capacity of 2/3 the capacity of the corresponding fixed pump required in Table VI58(3), at a minimum pressure of 4 bar at the pump outlet, which shall be provided with a pressure gauge;
- (c) one of the fixed bilge pumps required in paragraph (3), Regulation 58, may be used as a fixed fire pump;
- (d) piping shall be arranged to dewater the vessel in the event of flooding.

(2) Portable fire pump:

- (a) vessels of 12 meters in length or more shall be provided with a portable power or electric driven firefighting pump to serve all of the vessel's spaces, kept in a location on the main deck, outside the engine room, with minimum capacity equal to the capacity required in Table VI58(4), at a minimum pressure of 4 bar at the pump outlet, which shall be provided with a pressure gauge;
- (b) the portable bilge pump required by paragraph (4) of Regulation 58 may be used as a portable fire pump;
- (c) the pump shall be capable of being used and to dewater any of the vessel's spaces in the event of flooding.

(3) Each hydrant and portable pump outlet shall be provided with a flexible fire hose of no more than 15 meters length and of at least diameter 40 millimeters, made of incombustible material and metallic nozzle of at least diameter 12 millimeters . The Competent Authority may accept incombustible flexible hoses of good grade, on a case by case basis for vessels of less than 18 meters in length.

**72.-**(1) Vessels shall have at least two 4-liter metallic buckets with an attached lanyard of length no less than the vessel's depth.

- (2)(a) Vessels shall be provided with portable fire extinguishers placed at easily accessible and conspicuous positions, in satisfactory numbers, content and capacity, at the discretion of the Competent Authority, for the spaces they are intended;
  - (b) portable fire extinguishers shall be annually inspected by technicians, or workshops, accepted by the Competent Authority, which shall issue a verification, where a list of the extinguishers, their type and content and the vessel's name shall be recorded. Each extinguisher shall bear a label indicating the date of inspection and the name of the vessel.
- (3) Vessels with enclosed spaces shall have a fire axe.

**73.**-(1) Fixed fire detection and extinction systems, including cylinders for gas extinguishing, shall be constructed and manufactured in accordance with current requirements of recognised organizations or technical standards accepted by the Competent Authority.

(2) Manned and unmanned machinery spaces, and spaces containing flammable substances shall be protected with custom-engineered fixed fire extinguishing system. The extinguishing agent shall cover all spaces.

Other firefighting means.

Fixed fire detection and fire extinction systems. (3) Unmanned machinery spaces, and spaces containing flammable substances, of less than 150 cubic meters volume, may alternatively be protected with custom-engineered fixed gas fire extinguishing system, capable of automatic discharge of the gas upon fire detection. The extinguishing agent shall cover all spaces.

(4) Unmanned machinery spaces, and spaces containing flammable substances, of less than 56 cubic meters volume, may alternatively be protected with pre-engineered fixed gas fire extinguishing system. The extinguishing agent shall cover all spaces.

(5) In spaces where the required amount of extinguishing gas can be supplied by only one portable fire extinguisher, the extinguisher and release mechanism shall be installed in a fixed location outside the space protected and the extinguishing gas shall be capable of being released without moving the extinguisher.

(6) Machinery spaces of less than 36 kilowatt power and paint stores of less than 4 cubic meters volume may alternatively be protected with portable fire extinguishers.

(7) An installation plan and booklet of instructions and maintenance for use by the crew shall be provided for each fixed fire detection and extinction system.

**74.-**(1) The mechanisms of actuation and control of the systems shall be installed outside the protected space and not in a space that might be inaccessible in the event of fire in the protected space.

(2) The mechanisms of actuation and control of the systems shall be located in a box, or enclosure, to preclude accidental discharge of the gas.

(3) The system protecting the manned machinery space shall be fitted with an approved time delay and alarm system activated by the extinguishing gas arranged to require the alarm to sound not less than the time necessary to escape from the space.

(4) A device shall be provided to automatically shut down power ventilation and machinery operating with air from the protected space, before the release of the extinguishing agent into the space.

(5) Cylinders for the fixed gas extinguishing system shall be kept outside the protected space in a location that will not become inaccessible in the event of fire in the protected space, which is inaccessible to passengers, stored in the vertical position and protected from moisture.

Cylinders for the fixed fire extinguishing system may be located in unmanned spaces of less than 150 cubic meters, under such safety provisions which satisfy the Competent Authority.

(6) Piping shall be securely fastened and protected against damage.

(7) Piping and fittings shall be protected inside and outside against chemical corrosion and fitted with drains and dirt traps.

Requirements of custom -engineered fixed gas fire detection and extinction systems. (8) The materials, strength, piping and other fittings size, quantity of extinguishing gas required for a protected space, and installation tests required, shall be subject to approval by the Competent Authority.

(9) Low melting materials, such as aluminum, shall not be used.

**75.**-(1) Manned and unmanned machinery spaces, and spaces containing flammable substances protected with a custom-engineered fixed carbon dioxide  $(CO_2)$  fire extinguishing system shall, in addition to the requirements of Regulation 73, satisfy the requirements of this Regulation.

(2) Carbon dioxide cylinders shall not be stored inclined more than 30 degrees from the vertical axis.

(3) Piping, valves and fittings shall have a bursting pressure of not less than 42000 kilopascal.

(4) Piping shall distribute equal quantity of carbon dioxide throughout the space.

(5) The discharge of at least 85% of the required amount of carbon dioxide shall be completed within two minutes.

(6) The carbon dioxide quantity shall be computed with the formula m = V/f, where m: mass of the required gas in Kilograms, V: volume of the protected space in cubic meters and f: a factor to be taken from Table VIII75(6):

 TABLE VIII 75(6) – CARBON DIOXIDE QUANTITY

V	F
-14	0,94
14-45	1,00
45-125	1,10
125-1400	1,20

(7) The minimum nominal pipe size, in millimetres, shall be taken from Table VIII 75(7):

TABLE VIII 75(7) – QUANTITY OF CO2 AND NOMINAL PIPE SIZE

Maximum quantity of CO <sub>2</sub> required (Kg)	Minimum nominal pipe size (mm)
45,4	12,7
102,0	19,0
136,0	25,0
272,0	30,0

Requirements for pre-engineering fixed gas fire detection and extinction systems. **76.** -(1) Pre-engineered fixed gas fire detection and extinction systems shall be automatically actuated by heat detection, and capable of being manually actuated from outside the protected space.

(2) Power ventilation and machinery operating with air from the protected space shall automatically stop prior to releasing the extinguishing gas.

Special Requirements for fixed carbon dioxide fire detection and extinction systems. (3) A light to indicate discharge and an audible alarm that sounds upon discharge shall be provided.

(4) Only one pre-engineered fixed gas fire extinguishing system shall be installed in each space protected by such a system.

77. Fixed fire extinguishing systems with water shall satisfy the requirements of regulation 10 of Chapter II-2 of SOLAS.

**78.** The design and installation of other fixed fire detection and extinction systems, in machinery spaces and other spaces, may be approved by the Competent Authority on a case-by-case basis.

**79.** -(1) Cooking and heating equipment shall be sufficiently secured and provided with means to collect grease or fat.

(2) The safety requirements and standards for installations using liquefied petroleum gas, or compressed natural gas, either of the fixed or the portable gas bottle type, shall be subject to acceptance by the Competent Authority.

(3) Food preparation arrangements and grills using charcoal or open flames shall be installed at the stern of the vessel, shall be continuously over sighted and firefighting precautions shall be taken.

# PART IX - LIFESAVING APPLIANCES – NAVIGATION – RADIO EQUIPMENT

**80.** Lifesaving appliances, navigation equipment and communications equipment shall be constructed and manufactured with standards in force acceptable by the Competent Authority.

**81**.–(1) All vessels shall be provided with life-jackets of a make acceptable by the Competent Authority and shall be of orange color, with a whistle and retro reflective material, in a number equal to the number of persons allowed for in the safety certificate plus 10% of that number. Each life-jacket for adults shall have a minimum buoyancy of 73 Newton.

(2) In addition, all vessels shall be provided with children life-jackets, in a number corresponding to 10% of the number of passengers allowed. It is the responsibility of the skipper to supply the vessel with additional children life-jackets when that is required.

(3) Life-jackets shall be readily accessible to passengers and it is prohibited to keep them locked in containers or any other space during voyages.

(4) Life-jackets for adults shall be kept separately from children life-jackets.

**82**. -(1) At least one lifebuoy, of a type acceptable by the Competent Authority, shall be provided on each side of the vessel. Each lifebuoy shall have a buoyancy of 145 Newton.

(2) Vessels of 18 meters in length or more shall have at least two widely separated in distance lifebuoys on each side of the vessel.

Fixed water fire detection and extinction systems.

Other fixed fire detection and extinction systems in machinery spaces.

Galleys.

General requirements for lifesaving appliances, navigation and radio equipment.

Life-jackets.

Lifebuoys.

(3) Lifebuoys shall be readily accessible, ready for use, not permanently secured, provided with retro reflective material, be of orange color and with a grabline attached around the circumference and a lifeline of 25 meters in length.

(4) Lifebuoys on vessels engaged in night voyages shall be provided with a self-igniting light, of a type subject to acceptance by the Competent Authority.

Lifesaving floats -crafts.

83. -(1) Life floats:-

The total number of life floats shall be adequate for at least 50% of the number of passengers recorded in the safety certificate.

The time required for launching life floats shall not exceed 3 minutes.

Life floats shall be suitably positioned, on open deck, to freely float in the event the vessel sinks.

Life floats secured on the vessel shall be provided with a hydrostatic release unit, of a type acceptable by the Competent Authority, and their manual release shall also be possible.

Life floats shall be subject to approval by the Competent Authority, be of orange colour, fitted with a grabline of 9,5 millimeters least diameter attached around the circumference and grips secured at equidistant points and provided with retro reflective material.

The minimum requirements for the construction of life floats are as follows:

- (a) They shall be constructed of inherently buoyant material, excluding rushes, cork shavings, granulated cork, any other loose granulated material and inflatable compartments;
- (b) they shall be constructed to withstand a drop into the water from the height they are stowed to the waterline corresponding to the unloaded displacement;
- (c) the sum of the volumes of the life floats shall be calculated using the formula  $V \ge (m + 24N) / 1,025$ , where V: the sum of the volumes of the individual life floats in cubic decimeters, m: the sum of the masses of the individual life floats in Kilograms, and N: the number of persons on board.

(2) Powered emergency craft:

Vessels of 18 meters in length or more or with a carrying capacity of 50 or more passengers shall be provided with a powered emergency craft, which shall be subject to approval by the Competent Authority, of minimum carrying capacity of 4 persons and provided with fuel sufficient for 6 hours operation.

The craft shall have no more than 3 minutes operational readiness and may be either towed or carried on board the vessel where a launching appliance shall be provided if that is considered necessary by the Competent Authority. Other lifesaving means.

**84.**-(1) Vessels shall be provided with 3 hand orange smoke buoyant distress signals. Vessels performing night voyages shall, in addition, be provided with 3 rocket parachute red flares and 3 hand red flare distress signals.

The visual signals shall be stowed in a suitable portable container bearing the name of the vessel, away from heat sources.

(2) Vessels shall be provided with nautical binoculars.

(3) Vessels shall be provided with a strong portable safety light (lamp). Vessels performing night voyages shall be provided with two safety lights, one of which shall be kept at the steering position. A spare set of batteries shall be provided for each safety light.

(4) Vessels with more than 750 millimeters freeboard in the unloaded position shall be provided with a rescue ladder for the ascent of persons from the sea.

(5) Where the distance from the embarkation station to the waterline is more than 1,5 meters, the vessel shall be provided with one embarkation ladder for every 50 passengers or part thereof. The ladder may be substituted for the rescue ladder required in paragraph (4).

(6) Sailing vessels shall be provided with a tools and materials kit for emergency repairs to the rigging system.

*Navigation telecommunications.*  **85.** -(1) Vessels shall be provided with all the necessary printed or electronic information with regard to the area of operation.

(2) Vessels shall be provided with a magnetic compass of a type acceptable by the Competent Authority, mounted at a position where it will not be affected by magnetic fields and its indication will be visible from the steering position.

(3) Vessels shall be provided with a horn of power and standards acceptable by the Competent Authority.

(4) Vessels shall be provided with a very high frequency (VHF) radio installation, of a type acceptable by the Competent Authority, with a minimum of 25-Watt power. VHF radio equipment installed after the date of entry into force of these Regulations shall have digital selective calling (DSC) capability. On the date hearing at channel 16 from the coastal stations of the Republic is abolished, all radio apparatus shall be provided with DSC capability.

(5) Vessels shall be provided with a reserve buoyant VHF radio of a type acceptable to the Competent Authority, with a minimum of 3-Watt power and verified response at the area of operation of the vessel. A charger or spare battery shall be provided for each battery.

(6) Radio equipment shall meet the SOLAS requirements.

(7) Continuous hearing shall be maintained during voyages.

(8) Vessels shall be provided with lights and shapes in accordance with the provisions of the Convention on International Regulations for Preventing Collisions at Sea , 1972 (Ratification) and for Matters Connected Therewith Laws of 1980 to 1989.

**86.** Maintenance and repair of lifesaving appliances, navigation and radio equipment shall be undertaken by technicians or workshops acceptable by the Competent Authority, and the manufacturer's instructions shall be followed.

## PART X: SPECIAL REQUIREMENTS FOR CERTAIN VESSELS

**87.** -(1) To facilitate the operation of vessels engaged in amateur fishing, specific adjustments regarding the requirements of Regulations 25 and 26 in relation to passenger spaces and their protection, may be allowed.

(2) Vessels shall fly suitable flags and signals concerning their engagement in amateur fishing.

**88.**-(1) Vessels carrying divers or trainee divers shall have a suitable space for the positioning of the diving equipment and shall be provided with an oxygen bottle, a mobile telephone of verified response in the area of operation, and a sign with the telephone number of the Search and Rescue Co-ordination Centre at a conspicuous position on the vessel and shall fly suitable flags for the vessel and the diving activity.

(2) Such vessels may be exempted from the requirements of Regulations 25 and 26 in relation to passenger spaces and their protection.

- **89.-**(1) Such vessels shall comply with:
  - (a) The requirements of the following regulations:
    - (i) Part I;
    - (ii) Part II, except paragraphs (2) and (3) of Regulation 11, paragraphs (2), (3) and (4) of Regulation 12, paragraph (1) of Regulation 16 and subparagraph (c) of paragraph (1) of Regulation 18;
    - (iii) from Part III: paragraph (1) of Regulation 25, paragraphs (1), (4), (5), (7) and (8) of Regulation 27 and Regulations 28, 29, 31, 32 and 33;
    - (iv) Parts IV, VI and VII;
    - (v) from Part VIII : Regulation 71 except for paragraph (1) to be applied to vessels of 18 meters in length or more and Regulation 72;
    - (vi) Part IX, except for paragraph (2) of Regulation 83, first subparagraph to paragraph (1) of Regulation 84 and paragraph (1) of Regulation 85;

(b) the following additional requirements:

(i) A seat for each passenger;

18 of 1980 8 of 1981 66 of 1982 4 of 1989.

Maintenance of lifesaving appliances.

Special operational

requirements for

vessels engaged

in amateur fishing.

Special operational requirements for vessels carrying divers, or trainee divers.

Special requirements for the transport of seamen, personnel and other professionals between port and anchorage or between ships.

- (ii) a first-aid kit containing: triangular bandage; 2 sterile gauze; 2 elastic bandage; scissors; antiseptic liquid for wound cleaning: Hydrogen Peroxide, H<sub>2</sub>O<sub>2</sub>; antiseptic liquid for wound cleaning: Iodine Povidone 10%; quantity of Betadine; pair of surgical gloves; adhesive tape; 6 doses of analgesic pain killer;
- (iii) vessels shall be provided with 2 hand orange smoke buoyant distress signals. Vessels engaged in night voyages shall, in addition, be provided with 2 rocket parachute red flares and a strong portable safety light with spare batteries.

(2) New and existing vessels of 24 meters or more in length shall, in addition, satisfy the requirements of the remainder of Part III except Regulation 26, Part V, the remainder of Parts VI, VII and VIII and the first subparagraph of paragraph (1) of Regulation 84.

**90.-**(1) Inflatable vessels shall meet the requirements of these Regulations with the following exemptions:

- (i) from Part I: Regulation 5;
- (ii) from Part II: paragraphs (1), (2) and (5) of Regulation 14, paragraph (1) of Regulation 16 and paragraph (3) of Regulation 17;
- (iii) Part III, except Regulation 24, subparagraph (b) of paragraph (1) of Regulation 25, and Regulation 31;
- (iv) from Part IV: Regulations 35 and 36, and paragraphs (2) and (3) of Regulation 37;
- (v) Part V, provided that for Regulation 40 there are equivalent arrangements;
- (vi) from Part VI: Regulations 56, 57, 58, 59, 61, provided that equivalent arrangements exist, as well as Regulation 60;
- (vii) Part VII, except Regulations 62, 65, 66 and 67;
- (viii) Part VIII, except Regulation 72;
- (ix) from Part IX : Regulation 83.

(2) Inflatable vessels shall, in addition, satisfy the following requirements:

- (a) Maximum voyage duration shall be limited to  $1\frac{1}{2}$  hour;
- (b) vessels shall be provided with a first-aid kit containing: a triangular bandage; 2 sterile gauze; 2 elastic bandage; scissors; antiseptic liquid for wound cleaning: Hydrogen Peroxide, H<sub>2</sub>O<sub>2</sub>; antiseptic liquid for wound cleaning: Iodine Povidone 10%; quantity of Betadine; a pair of surgical gloves; adhesive tape; 6 doses of analgesic pain killer;
- (c) the manufacturer's manual shall be submitted for approval by the Competent Authority, in which manual the construction and equipment standards shall be recorded, in sufficient, to the Competent Authority's discretion, details;

(d) construction:

- (i) vessels shall be provided with a fixed seat for each passenger. It is prohibited to use tubes as seating;
- (ii) passenger spaces shall be arranged and equipped in a manner to provide for passenger safety and the floor shall have non-

Special requirements for inflatable vessels. slippery characteristics;

- (iii) vessels shall be constructed for professional use;
- (iv) the hull shall be rigid;
- (v) the interior of the vessel shall not have any articles, fittings, or protrusions making likely the injury of the passengers;
- (vi) vessels shall have ropes at side for use by the passengers in case they are thrown into the sea;
- (vii) minimum permitted freeboard shall be taken as the greater between the freeboard given by manufacturer and the freeboard determined with the simplified stability test;

(e) stability: vessels shall be provided with a self rising device;

(f) watertight subdivision:

- (i) the hull shall be provided with at least 3 watertight compartments on each side;
- (ii) the tubes shall have a minimum of 4 chambers- it is recommended that they are provided with safety valves, they shall have protective strings, they shall cover the interior and the exterior part of the vessel and their diameter shall be proportional to vessel's displacement, as per manufacturer's design;
- (g) engine control: vessels shall have a quick shut-down switch and shall be provided with fuel shut-off devices in case the vessel capsizes;
- (h) vessels shall be provided with oars and a minor repair kit.

**91.**-(1) Small passenger vessels shall satisfy the requirements of these Regulations, except paragraphs (2) and (3) of Regulation 11 and Regulation 83 and in addition -

- (a) new vessels shall meet the provisions of the remainder of these Regulations;
- (b) existing vessels, irrespective of the transition period set out in paragraph (2) of Regulation 4 in Part I, shall satisfy the provisions of the following Regulations as from the date of entry into force of these Regulations<sup>5</sup>:
  - (i) from Part III: Regulations 27, 30, 32 and 33.
  - (ii) from Part IV : paragraph (2) of Regulation 36.
  - (iii) Part V.
  - (iv) from part VI: Regulations 57, 58, 59 and 61.
  - (v) Part VIII.

(2) In addition, new and existing vessels shall satisfy the following requirements:

(a) The design and construction shall be suitable for engagement in international voyages;

Special requirements for small passenger vessels.

 $<sup>^{5}</sup>$  Editorial Note: It is recalled that these Regulations came into force on their date of publication in the Official Gazette of the Republic , i.e. on 19 July 2002.

- (b) vessels shall be provided with:
  - (i) inflatable liferafts satisfying the provisions of Chapter III of SOLAS, for type B package, with a total capacity to cover all persons on board.
     Liferaft installation and release shall satisfy the provisions of Chapter III of SOLAS.
  - (ii) radio equipment satisfying the provisions of Chapter IV of SOLAS, for the intended sea area, including an emergency position indicating radio beacon (EPIRB).
  - (iii) echo-sounding device, chart-table plotter and compass, nautical publications, RADAR unit and GPS unit satisfying the provisions of Chapter V of SOLAS.
  - (iv) other instruments or means considered necessary by the Competent Authority for the intended area of voyages.
- (c) the skipper shall be in possession of qualifications sufficient for the command of the vessel in the intended areas of operation and at least one member of the crew shall hold a General Operator's Certificate (GOC);
- (d) vessels shall be provided with accommodation spaces with berths for all persons on board.

DMS Version October 2006

#### FIRST SCHEDULE





ΔΗΜΟΚΡΑΤΙΑ OF CYPRUS

### ΥΠΟΥΡΓΕΙΟ ΣΥΓΚΟΙΝΩΝΙΩΝ ΚΑΙ ΕΡΓΩΝ MINISTRY OF COMMUNICATIONS AND WORKS TMHMA ΕΜΠΟΡΙΚΗΣ ΝΑΥΤΙΛΙΑΣ DEPARTMENT OF MERCHANT SHIPPING

### ΠΙΣΤΟΠΟΙΗΤΙΚΟ ΑΣΦΑΛΕΙΑΣ ΑΚΤΟΠΛΟΪΚΟΥ ΕΠΙΒΑΤΗΓΟΥ ΣΚΑΦΟΥΣ COASTAL PASSENGER VESSEL SAFETY CERTIFICATE

εκδοθέν σύμφωνα με τις διατάξεις των περί Ακτοπλοϊκών και Άλλων Επιβατηγών Σκαφών Κανονισμών του 2002, ΚΔΠ XX/2002 issued under the provisions of the Coastal and Other Passenger Vessels Regulations 2002, P.I. XX/2002

	Όνομα Σκάφους Name of Vessel			ηολόγησης Registry	Αρ. Νηολογίου Official No.	Έτος Κατασκευής Year of Build	
Υλικό Material	Ολική Χωρητικότητα Gross Tonnage	Μήκος Length	Ισχύς Μηχ Engine Power	Ταχύτητα Speed	Νέο / Υπάρχον New / Existing	Νυκτερινοί Πλόες Evening Cruises	
	Επιτρεπόμενη περιοχή πλόων και διάρκεια πλόων Permitted area of operation and duration of trip					Συνήθης Ελλιμενισμός Routine Homeport	

Βεβαιούται ότι :

This to certify that :

- 1. το πιο πάνω σκάφος επιθεωρήθηκε σύμφωνα με τις διατάξεις των πιο πάνω Κανονισμών και the above vessel has been surveyed in accordance with the requirements of the above mentioned Regulations and
- 2. η επιθεώρηση απέδειξε ότι το σκάφος πληροί τις απαιτήσεις των Κανονισμών σε ότι αφορά την κατασκευή, την ευστάθεια, την υποδιαίρεση και την στεγανότητα, την διάταξη πυρασφάλειας και τα μέσα πυρόσβεσης, τις μηχανές πρόωσης, τα βοηθητικά μηχανήματα, την ηλεκτρική εγκατάσταση, τα σωστικά μέσα, τα όργανα και τους φανούς ναυσιπλοΐας, τα μέσα σηματοδότησης και τηλεπικοινωνίας και τα μέσα ασφαλούς επιβίβασης και αποβίβασης. the survey showed that the vessel meets the provisions of the Regulations concerning the construction, stability, subdivision and watertightness, the fire protection arrangement and fire extinguishing equipment, the propulsion engines, the auxiliary machinery, the electrical installation, the lifesaving appliances, the navigation instruments and lights, the signaling and radio equipment and the means of boarding / disembarking from the boat.
- Το σκάφος κρίθηκε κατάλληλο να μεταφέρει όχι περισσότερους από \_\_\_ επιβάτες από τους οποίους όχι πέραν των \_\_\_ στο άνω κατάστρωμα, με προϋποθέσεις που αναφέρονται στο οπισθόφυλλο.

The vessel was considered fit to carry no more than \_\_\_\_ passengers of which no more than \_\_\_\_ on the uppermost deck, subject to conditions stated overleaf.

Απαγορεύεται ο απόπλους με συνθήκες θάλασσας άνω του ½ μέτρου ύψους κύματος και δύναμης ανέμου μεγαλύτερης των 4 μποφόρ καθώς και η απομάκρυνση σε απόσταση μεγαλύτερη των 3 ναυτικών μιλίων από την ακτογραμμή ή 6 ναυτικών μιλίων από τόπο καταφυγής.

Departure with sea state greater than <sup>1</sup>/<sub>2</sub> meter of wave height and wind force 4 beaufort or greater and the sailing at a distance greater than 3 nautical miles from the coastline or 6 nautical miles from a place of refuge is prohibited.

Το παρόν Πιστοποιητικό ισχύει μέχρι (ημερομηνία λήξεως) This Certificate is valid until (date of expiry)

**Εκδίδεται στ** (τόπος έκδοσης) την (ημερομηνία έκδοσης) Issued at (place of issue) the (date of issue)

Υπογραφή του εκδίδοντος εξουσιοδοτημένου Επιθεωρητή Πλοίων Signature of the authorized Marine Surveyor issuing the Certificate Σφραγίδα της Αρμοδίας Αρχής Stamp of the Competent Authority

#### SECOND SCHEDULE

KYIIPIAKH REPUBLIC



ΔHMOKPATIA OF CYPRUS

### ΥΠΟΥΡΓΕΙΟ ΣΥΓΚΟΙΝΩΝΙΩΝ ΚΑΙ ΕΡΓΩΝ MINISTRY OF COMMUNICATIONS AND WORKS ΤΜΗΜΑ ΕΜΠΟΡΙΚΗΣ ΝΑΥΤΙΛΙΑΣ DEPARTMENT OF MERCHANT SHIPPING

#### ΠΙΣΤΟΠΟΙΗΤΙΚΟ ΑΣΦΑΛΕΙΑΣ ΜΙΚΡΟΥ ΕΠΙΒΑΤΗΓΟΥ ΣΚΑΦΟΥΣ SMALL PASSENGER VESSEL SAFETY CERTIFICATE

εκδοθέν σύμφωνα με τις διατάξεις των περί Ακτοπλοϊκών και Άλλων Επιβατηγών Σκαφών Κανονισμών του 2002, ΚΔΠ ΧΧ/2002. issued under the provisions of the Coastal and Other Passenger Vessels Regulations 2002, P.I. XX/2002.

Όνομα Σκάφους Name of Vessel			Λιμάνι Νηολόγησης Port of Registry		Αρ. Νηολογίου <i>Official No.</i>	
Υλικό Material	Ολική Χωρητικότητα Gross Tonnage	Μήκος Length	Ισχύς Μηχ Engine Power	Ταχύτητα Speed	Νέο / Υπάρχον New / Existing	Έτος Κατασκευής Year of Build
Επιτρεπόμενη περιοχή πλόων Permitted area of operation					Συνήθης Ελ Routine I	

Βεβαιούται ότι :

This to certify that :

- το πιο πάνω σκάφος επιθεωρήθηκε σύμφωνα με τις διατάζεις των πιό πάνω Κανονισμών και the above vessel has been surveyed in accordance with the requirements of the above mentioned Regulations and
- 2. η επιθεώρηση απέδειξε ότι το σκάφος πληροί τις απαιτήσεις των Κανονισμών σε ότι αφορά την κατασκευή, την ευστάθεια, την υποδιαίρεση και την στεγανότητα, την διάταξη πυρασφάλειας και τα μέσα πυρόσβεσης, τις μηχανές πρόωσης, τα βοηθητικά μηχανήματα, την ηλεκτρική εγκατάσταση, τα σωστικά μέσα, τα όργανα και τους φανούς ναυσιπλοΐας, τα μέσα σηματοδότησης και τηλεπικοινωνίας και τα μέσα ασφαλούς επιβίβασης και αποβίβασης.

the survey showed that the vessel meets the provisions of the Regulations concerning the construction, stability, subdivision and watertightness, the fire protection arrangement and fire extinguishing equipment, the propulsion engines, the auxiliary machinery, the electrical installation, the lifesaving appliances, the navigation instruments and lights, the signaling and radio equipment and the means of boarding / disembarking from the vessel.

3. Το σκάφος κρίθηκε κατάλληλο να μεταφέρει όχι περισσότερους από \_\_\_ επιβάτες από τους οποίους όχι πέραν των \_\_ στο άνωτατο κατάστρωμα σε διεθνείς πλόες, με προϋποθέσεις που αναφέρονται στο οπισθόφυλλο.

The vessel was considered fit to carry no more than \_\_\_\_ passengers on international voyages of which no more than \_\_\_\_ on the uppermost deck, subject to conditions stated overleaf. Απαγορεύεται η διενέργεια πλόων εκτός της επιτρεπόμενης περιοχής πλόων που αναγράφεται πιο πάνω. Voyages out of the permitted area of operation stated above are prohibited.

Το παρόν Πιστοποιητικό ισχύει μέχρι (ημερομηνία λήζεως) This Certificate is valid until (date of expiry)

**Εκδίδεται στ** (τόπος έκδοσης) την (ημερομηνία έκδοσης) Issued at (place of issue) the (date of issue)

Υπογραφή του εκδίδοντος εξουσιοδοτημένου Επιθεωρητή Πλοίων Signature of the authorized Marine Surveyor issuing the Certificate Σφραγίδα της Αρμοδίας Αρχής Stamp of the Competent Authority