# **COMMISSION DIRECTIVE 2002/35/EC**

## of 25 April 2002

## amending Council Directive 97/70/EC setting up a harmonised safety regime for fishing vessels of 24 metres in length and over

(Text with EEA relevance)

THE COMMISSION OF THE EUROPEAN COMMUNITIES.

Having regard to the Treaty establishing the European Community,

Having regard to Council Directive 97/70/EC of 11 December 1997 setting up a harmonised safety regime for vessels of 24 metres in length and over (1), as amended by Commission Directive 1999/19/EC (2), and in particular Article 8 thereof,

# Whereas:

- (1) The Torremolinos Protocol relating to the Torremolinos International Convention for the Safety of Fishing Vessels, 1977, hereinafter referred to as the 'Torremolinos Protocol' was adopted on 2 April 1993.
- Directive 97/70/EC establishes a harmonised safety (2) regime for certain fishing vessels, applying the Torremolinos Protocol to them.
- In order to ensure consistency in the application of the (3) provisions of the Annex to the Torremolinos Protocol for the application of Article 3(1) of Directive 97/70/EC, it appears necessary to harmonise the interpretations left to the discretion of the administrations of the Member States of certain of those provisions. These harmonised interpretations should apply only to fishing vessels constructed on or after 1 January 2003 as they imply important changes in the construction of fishing vessels.
- Directive 97/70/EC should therefore be amended accordingly.
- The measures provided for in this Directive are in (5) accordance with the opinion of the Committee established by Article 12 of Council Directive 93/75/EEC (3), as last amended by Commission Directive 98/74/EC (4),

HAS ADOPTED THIS DIRECTIVE:

#### Article 1

Annex I to Directive 97/70/EC is hereby replaced by the text in the Annex to this Directive.

#### Article 2

Member States shall adopt and publish, before 1 January 2003 the provisions necessary to comply with this Directive. They shall forthwith inform the Commission thereof. They shall apply those provisions from 1 January 2003.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

Member States shall communicate to the Commission the provisions of national law, which they adopt in the field covered by this Directive.

#### Article 3

This Directive shall enter into force on the 20th day following its publication in the Official Journal of the European Communities.

# Article 4

This Directive is addressed to the Member States.

Done at Brussels, 25 April 2002.

For the Commission Loyola DE PALACIO Vice-President

OJ L 83, 27.3.1999, p. 48. OJ L 247, 5.10.1993, p. 19. OJ L 276, 13.10.1998, p. 7.

#### **ANNEX**

#### 'ANNEX I

# Adaptation of provisions of the Annex to the Torremolinos Protocol for application of Article 3(1) of Directive 97/70/EC

For the purpose of this Annex:

- 1. "New fishing vessel built on or after 1 January 2003" means a new fishing vessel for which:
  - (a) on or after 1 January 2003 the building or major conversion contract is placed; or
  - (b) the building or major conversion contract has been placed before 1 January 2003, and which is delivered three years or more after that date; or
  - (c) in the absence of a building contract, on or after 1 January 2003:
    - the keel is laid, or
    - construction identifiable with a specific ship begins, or
    - assembly has commenced comprising at least 50 tonnes or 1 % of the estimated mass of all structural material, whichever is less.

#### PART A

# Adaptations applicable to all fishing vessels to which the Directive applies, except to new fishing vessels built on or after 1 January 2003

#### CHAPTER I: GENERAL PROVISIONS

#### Regulation 2: Definitions

Paragraph (1) "New vessel" has to be replaced by the definition of "new fishing vessel" contained in Article 2 to this Directive.

## CHAPTER V: FIRE PROTECTION, FIRE DETECTION, FIRE EXTINCTION AND FIRE FIGHTING

## Regulation 2: Definitions

Paragraph (2) "standard fire test" to be read with the following changes at the end with regard to the standard temperature curve:

"... The standard time-temperature curve is defined by a smooth curve drawn through the following internal furnace temperature points:

| — initial internal furnace temperature: | 20 °C   |
|---|---------|
| — at the end of the first five minutes: | 576 °C  |
| — at the end of 10 minutes:             | 679 °C  |
| — at the end of 15 minutes:             | 738 °C  |
| — at the end of 30 minutes:             | 841 °C  |
| — at the end of 60 minutes:             | 945 °C" |

## CHAPTER VII: LIFE-SAVING APPLIANCES AND ARRANGEMENTS

## Regulation 1: Application

Paragraph (2) to be read as follows: "Regulations 13 and 14 shall also apply to existing vessels of 45 metres in length and over, provided that the administration may defer the implementation of the requirements of these regulations until 1 February 1999."

## Regulation 13: Radio life-saving appliances

Paragraph (2) to be read as follows: "Two-way VHF radiotelephone apparatus provided on board existing vessels and not complying with the performance standards adopted by the organisation may be accepted by the administration until 1 February 1999, provided that the administration is satisfied that they are compatible with approved two-way VHF radiotelephone apparatus."

## CHAPTER IX: RADIO COMMUNICATIONS

#### Regulation 1: Application

Paragraph (1), second sentence, to be read as follows:

"However, for existing vessels, the administration may defer the implementation of the requirements until 1 February 1999."

#### Regulation 3: Exemptions

Paragraph (2)(c) to be read as follows:

"when the vessel will be taken permanently out of service before 1 February 2001."

#### PART B

## Adaptation applicable to new fishing vessels built on or after 1 January 2003

The existing text of the following regulations shall be read as follows:

#### CHAPTER I: GENERAL PROVISIONS

#### Regulation 2: Definitions

Subparagraph (22)(a)(ii)

The bulkhead shall be located at a distance from the forward perpendicular: not less than 0,05L and not more than 0,05L plus 1,35 m for vessels of less than 45 m in length.

## Regulation 6: Surveys

Subparagraph (1)(c)

In addition to the periodical survey required in subparagraph (b)(i), intermediate surveys with regard to the structure and machinery of the vessel at intervals of two years plus/minus three months for vessels constructed of material other than wood and at intervals specified by the Administration for vessels constructed of wood. The surveys shall also be such as to ensure that alterations, which would adversely affect the safety of the vessel or the crew, have not been made.

## CHAPTER II: CONSTRUCTION, WATERTIGHT INTEGRITY AND EQUIPMENT

## Regulation 1: Construction

Paragraph (1)

Strength and construction of hull, superstructures, deckhouses, machinery casings, companionways and any other structures and vessel's equipment shall be sufficient to withstand all foreseeable conditions of the intended service and shall be in accordance with the rules of a recognised organisation.

## Regulation 2: Watertight doors

Paragraph (1)

The number of openings in watertight bulkheads, as required by regulation 1(3), shall be reduced to the minimum compatible with the general arrangements and operational needs of the vessel; openings shall be fitted with watertight closing appliances complying with the rules of a recognised organisation. Watertight doors shall be of an equivalent strength to the adjacent unpierced structure.

# Regulation 2: Watertight doors

Subparagraph (3)(a)

In vessels of 45 m in length and over, watertight doors shall be of the sliding type in:

spaces where it is intended to open them at sea and if located with their sills below the deepest operating waterline, unless the Administration considers it to be impracticable or unnecessary taking into account the type and operation of the vessel.

Exemptions from this regulation allowed by a Member State shall be subject to the procedure of Article 4 of this Directive.

#### Regulation 5: Hatchways

# Paragraph (3)

Arrangements for securing wood hatchway covers weathertight shall be provided in accordance with the standards as given in regulations 14 and 15 of Annex I to the International Convention on Load Lines 1966 (1).

#### Regulation 9: Ventilators

#### Paragraph (1)

In vessels of 45 m in length and over, the height above deck of ventilator coamings, other than machinery space ventilator coamings, shall be at least 900 mm on the working deck and at least 760 mm on the superstructure deck. In vessels of less than 45 m in length the height of these coamings shall be 760 mm and 450 mm respectively. The height above deck of machinery space ventilator openings, necessary to continuously supply the machinery space and, on demand, immediately supply the generator room, in general shall be in compliance with regulation II/9(3). However, where due to the ships size and arrangements this is not practicable, lesser heights, but in all cases not less than 900 mm above the working deck and the superstructure deck, may be accepted with the provision of weathertight closing appliances in accordance with regulation II/9(2) in combination with other suitable arrangements to ensure an uninterrupted adequate supply of ventilation to the spaces.

#### Regulation 12: Side scuttles

#### Paragraph (6)

The Administration may accept side scuttles and windows without deadlights in side and aft bulkheads of deckhouses located on or above the working deck if satisfied that the safety of the vessel will not be impaired, taking into account the rules of recognised organisations based upon the relevant ISO standards.

## Regulation 15: Anchor equipment

Anchor equipment designed for quick and safe operation shall be provided, which shall consist of anchoring equipment, anchor chains or wire ropes, stoppers and a windlass or other arrangements for dropping and hoisting the anchor and for holding the vessel at anchor in all foreseeable service conditions. Vessels shall also be provided with adequate mooring equipment for safe mooring in all operating conditions. Anchor and mooring equipment shall be in accordance with the rules of a recognised organisation.

# CHAPTER III: STABILITY AND ASSOCIATED SEAWORTHINESS

# Regulation 1: General

Vessels shall be so designed and constructed that the requirements of this chapter will be satisfied in the operating conditions referred to in regulation 7. Calculations of the righting lever curves shall be carried out in accordance with the IMO Code on Intact Stability for All Types of Ships (2).

## Regulation 2: Stability criteria

## Paragraph (1)

The following minimum stability criteria shall be met unless the Administration is satisfied that operating experience justifies departures therefrom. Any departure from the required minimum stability criteria, allowed by a Member State, shall be subject to the procedure of Article 4 of this Directive (3).

## Subparagraph (1)(d)

The initial metacentric height GM shall not be less than 350 mm for single deck vessels. In vessels with complete superstructure the metacentric height may be reduced to the satisfaction of the Administration but in no case shall be less than 150 mm. Reduction of the required metacentric height, allowed by a Member State, shall be subject to the procedure of Article 4 of this Directive.

<sup>(1)</sup> The International Convention on Load Lines 1966, as established by the International Conference on Load Lines on 5 April 1966 and adopted by the International Maritime Organisation by its Resolution A.133(V) on 25 October 1967.
(2) The Code on Intact Stability for All Types of Ships Covered by IMO Instruments adopted by the International Maritime Organisation by resolution A.749(18) on 4 November 1993, as amended by resolution MSC.75(69).
(3) The stability criteria for offshore supply vessels in paragraph 4.5.6.2.1 to 4.5.6.2.4 in the IMO Code on Intact Stability for All Types of Ships) may be considered as equivalent to the stability criteria in regulation 2(1)(a) to (c). This equivalence can only be applied, subject to satisfaction of the Administration, for fishing vessels with a hull form which is similar to that of offshore supply vessels.

## Paragraph (3)

Where ballast is provided to ensure compliance with paragraph (1), its nature and arrangements shall be to the satisfaction of the Administration. In vessels with a length of less than 45 m, such ballast shall be permanent. Where ballast is permanent, it shall be solid and fixed securely in the vessel. The Administration may accept liquid ballast, stored in completely filled tanks which are not connected to any pumping system of the vessel. If liquid ballast is used as permanent ballast to ensure compliance with paragraph (1), details shall be included in the Certificate of Compliance and in the stability booklet.

Permanent ballast shall not be removed from the ship or relocated without the approval of the Administration.

#### Regulation 4: Particular fishing methods

Vessels engaged in particular fishing methods where additional external forces are imposed on the vessel during fishing operations, shall meet the stability criteria of regulation 2(1) increased, if necessary, to the satisfaction of the Administration. Vessels engaged in beam trawling shall comply with the following increased stability criteria:

- (a) the criteria for the area's under the righting lever and for the righting levers as given in regulation 2(1)(a) and (b) shall be increased by 20 %;
- (b) the metacentric height shall not be less than 500 mm;
- (c) the criteria as given under (a) shall be applicable only to vessels with an installed propulsion power not exceeding the value in kilowatts as given in the following formulas:
  - $N = 0.6 L_s^2$  for vessels with a length of 35 m or less, and
  - $N = 0.7 L_s^2$  for vessels with a length of 37 m and over,
  - at intermediate length of the vessel the coefficient for L<sub>s</sub> has to be obtained by interpolation in between 0,6 and 0,7,
  - L<sub>s</sub> is the overall length according to the Tonnage Certificate.

If the installed propulsion power exceeds the values for the standard propulsion power as given in the above formulas the criteria as mentioned under (a) shall be increased directly proportional to the higher propulsion power.

The Administration shall be satisfied that the above increased stability criteria for beam trawlers are met in the operating conditions mentioned under regulation 7(1) of this chapter.

For the calculation of the stability, the beams shall be assumed to be hoisted up to an angle of 45 degrees with the horizontal.

## Regulation 5: Severe wind and rolling

Vessels shall be able to withstand the effect of severe wind and rolling in associated sea conditions taking account of the seasonal weather conditions, the sea states in which the vessel will operate, the type of vessel and its mode of operation. The relevant calculations shall be carried out in accordance with the IMO Code on Intact Stability for all Types of Ships.

## Regulation 8: Ice accretion

This regulation applies except where the modification of the icing allowance, left to the discretion of the Administration by recommendation 2 ( $^1$ ) is not allowed.

#### Regulation 9: Inclining test

## Paragraph (2)

Where alterations are made to a vessel affecting its light ship condition and/or the position of the centre of gravity, the vessel shall, if the Administration considers this necessary taking into account the vessels stability margins, be reinclined and the stability information revised. However, if the lightweight variation exceeds 2 % from the original lightweight and it cannot be demonstrated by calculation that the vessel continues to comply with the stability criteria, the vessel shall be re-inclined.

<sup>(</sup>¹) For sea areas where ice accretion may occur and modifications of the icing allowance are suggested, see Guidance relating to Ice Accretion contained in recommendation 2 of attachment 3 to the final Act of the Torremolinos Conference.

## Regulation 12: Bow height

The bow height shall be sufficient, to prevent the excessive shipping of water.

For vessels operating in restricted areas not more than 10 miles from the coast, the minimum bow height shall be to the satisfaction of the Administration and be determined taking into account the seasonal weather conditions, the sea states in which the vessel will operate, the type of the vessel and its mode of operation.

For vessels operating in all other areas:

- where, during the fishing operations, the catch has to be stowed into the fish holds via hatchways, which are situated
  on a exposed working deck forward of the deckhouse or superstructure, the minimum bow height shall be calculated
  in accordance with the method of calculation, contained in recommendation 4 of attachment 3 to the Final Act of the
  Torremolinos conference:
- 2. where the catch has to be stowed into the fish holds via a hatchway, which is situated on an exposed working deck, protected by a deckhouse or superstructure, the minimum bow height shall be in accordance with regulation 39 of Annex I to the International Load Line Convention 1966, but shall not be less than 2 000 mm. In this respect the maximum permissible operating draught is to be regarded in place of the assigned summer freeboard.

## Regulation 14: Subdivision and damage stability

Vessels of 100 m in length and over, where the total number of persons carried is 100 or more, shall be capable, of remaining afloat with positive stability, after flooding of any compartment assumed damaged, having regard to the type of vessel, the intended service and area of operation (1). Calculations to be carried out in accordance with the guidance as mentioned in the footnote.

# CHAPTER IV: MACHINERY AND ELECTRICAL INSTALLATIONS AND PERIODICALLY UNATTENDED MACHINERY SPACES

#### Regulation 3: General

#### Paragraph (1)

Main propulsion, control, steam pipe, fuel oil, compressed air, electrical and refrigeration systems; auxiliary machinery; boilers and other pressure vessels; piping and pumping arrangements; steering equipment and gears, shafts and couplings for power transmission shall be designed, constructed, tested, installed and serviced in accordance with the rules of a recognised organisation. This machinery and equipment, as well as lifting gear, winches, fish handling and fish processing equipment shall be protected so as to reduce to a minimum any danger to persons on board. Special attention shall be paid to moving parts, hot surfaces and other dangers.

## Paragraph (7)

The Administration shall be satisfied that regulations 16 to 18 are uniformly implemented and applied in accordance with the rules of a recognised organisation (²).

#### Paragraph (9)

Measures shall be taken to the satisfaction of the Administration to ensure that all equipment is functioning in a reliable manner in all operating conditions, including manoeuvring, and that arrangements in accordance with the rules of a recognised organisation are made for regular inspections and routine tests to ensure continuous reliable operation.

## Paragraph (10)

Vessels shall be provided with documentary evidence, complying with the rules of a recognised organisation, of their fitness to operate with periodically unattended machinery spaces.

## Regulation 6: Steam boilers, feed systems and steam piping arrangements

#### Paragraph (1)

Every steam boiler and every unfired steam generator shall be provided with not less than two safety valves of adequate capacity. However, the Administration may, having regard to the output or any other features of any steam boiler or unfired steam generator, permit only one safety valve to be fitted if satisfied that adequate protection against overpressure is thereby provided in accordance with the rules of a recognised organisation.

<sup>(1)</sup> See the guidance on subdivision and damage stability calculations contained in recommendation 5 of attachment 3 to the Final Act of the Torremolinos Conference.

<sup>(2)</sup> See also the recommendation, published by the International Electrotechnical Commission and, in particular, Publication 92, "Electric installations in ships".

## Regulation 8: Wheelhouse control

## Subparagraph (1)(b)

Where remote control of propulsion machinery is provided from the wheelhouse, the following shall apply: the remote control referred to in subparagraph (a) shall be performed by means of a control device complying with the rules of a recognised organisation with, where necessary, means of preventing overload of the propulsion machinery.

#### Regulation 10: Arrangements for fuel oil, lubricating oil and other flammable oils

#### Paragraph (4)

Fuel oil pipes which, if damaged, would allow oil escape from a storage, settling or daily service tank situated above the double bottom, shall be fitted with a cock or valve on the tank capable of being closed from a safe position outside the space concerned in the event of a fire arising in the space in which such tanks are situated. In the special case of deep tanks situated in any shaft or pipe tunnel or similar space, valves on the tank shall be fitted but control in the event of fire may be effected by means of an additional valve on the pipe or pipes outside the tunnel or similar space. If such additional valve is fitted in the machinery space, it shall be capable of being operated outside this space.

#### Paragraph (7)(a)

Fuel oil pipes and their valves and fittings shall be steel or other equivalent material, provided that a minimum of flexible pipes may be used. Such flexible pipes and end attachments shall be of adequate strength and shall be constructed of approved fire resistant material or have fire-resistant coatings in accordance with the rules of a recognised organisation. Fitting of those flexible pipes shall be in accordance with the IMO MSC. Circ. 647 "Guidelines to minimise leakages from flammable liquid systems".

## Paragraph (10)

The arrangements for the storage, distribution and use of oil employed in pressure lubrication systems shall be in accordance with the rules of a recognised organisation. Such arrangements in machinery spaces of category A and, wherever practicable, in other machinery spaces shall at least comply with the provisions of paragraphs (1), (3), (6) and (7) and in so far as necessary, in accordance with the rules of a recognised organisation, with paragraphs (2) and (4). This does not preclude the use of sight flow glasses in lubrication systems provided they are shown by test to have a suitable degree of fire resistance.

## Paragraph (11)

The arrangements for the storage, distribution and use of flammable oils employed under pressure in power transmission systems other than oil referred to in paragraph (10) in control and activating systems and heating systems shall be in accordance with the rules of a recognised organisation. In locations where means of ignition are present such arrangements shall at least comply with the provisions of paragraphs (2) and (6) and with the provisions of paragraphs (3) and (7) in respect of strength and construction.

## Regulation 12: Protection against noise

Measures shall be taken to reduce the effects of noise upon personnel in machinery spaces to levels as given in the IMO Code on Noise Levels on Board Ships (1).

## Regulation 13: Steering gear

## Paragraph (1)

Vessels shall be provided with a main steering gear and an auxiliary means of actuating the rudder in compliance with the rules of a recognised organisation. The main steering gear and the auxiliary means of actuating the rudder shall be arranged so that so far as is reasonable and practicable a single failure in one of them will not render the other one inoperative.

#### Regulation 16: Main source of electrical power

## Subparagraph (1)(a)

Where electrical power constitutes the only means of maintaining auxiliary services essential for the propulsion and the safety of the vessel, a main source of electrical power shall be provided which shall include at least two generating sets, one of which may be driven by the main engine. In accordance with the rules of a recognised organisation other arrangements having equivalent electrical capability may be accepted.

<sup>(</sup>¹) The Code on Noise Levels on Board Ships as adopted by the International Maritime Organisation by its resolution A.468(XII) on 19 November 1981.

## CHAPTER V: FIRE PROTECTION, FIRE DETECTION, FIRE EXTINCTION AND FIRE FIGHTING

#### Regulation 1: General

Subparagraph (c)

Method IIIF: The fitting of an automatic fire alarm and detection system in all spaces in which a fire might be expected to originate, generally with no restriction on the type of internal divisional bulkheads, except that in no case shall the area of any accommodation space or spaces bounded by an "A" or "B" class division exceed  $50 \, \text{m}^2$ . However, the Administration may increase this area for public spaces up to  $75 \, \text{m}^2$ .

#### Regulation 2: Definitions

#### Paragraph (1)

"Non-combustible material" means a material which neither burns nor gives off flammable vapours in sufficient quantity for self-ignition when heated to approximately 750 °C, this being determined in accordance with the IMO Fire Test Procedures Code (1). Any other material is a combustible material.

Paragraph (2) "standard fire test" to be read as follows:

"A standard fire test" is one in which the specimens of the relevant bulkheads or decks are exposed in a test furnace to temperatures corresponding approximately to the standard temperature curve. The test methods shall be in accordance with the IMO Fire Test Procedures Code.

Paragraph (3) (last sentence)

The Administration shall require a test of a prototype bulkhead or deck to ensure that it meets the above requirements for integrity and temperature rise in accordance with the IMO Fire Test Procedures Code.

Paragraph (4) (last sentence)

The Administration shall require a test of a prototype division to ensure that it meets the above requirements for integrity and temperature rise in accordance with the IMO Fire Test Procedures Code.

Paragraph (6) (last sentence)

The Administration shall require a test of a prototype division to ensure that it meets the above requirement for integrity and temperature rise in accordance with the IMO Fire Test Procedures Code.

Paragraph (9)

Low flame spread means that the surface thus described will adequately restrict the spread of flame, this being determined in accordance with the IMO Fire Test Procedures Code.

## Regulation 4: Bulkheads within the accommodation and service spaces

## Paragraph (4)

Method IIIF: There shall be no restriction on the construction of bulkheads not required by this or other regulations of this part to be "A" or "B" class divisions. In no case shall the area of any accommodation space or spaces bounded by a continuous "A" or "B" class division exceed 50  $\,\mathrm{m}^2$ , except in individual cases where "C" class bulkheads are required in accordance with table 1 in regulation 7. However, the Administration may increase this area for public spaces up to 75  $\,\mathrm{m}^2$ .

# Regulation 7: Fire integrity of bulkheads and decks

Last note to tables

(\*) Where an asterisk appears in the tables the division is required to be of steel or equivalent material but is not required to be of "A" class standard.

Where a deck is penetrated for the passage of electrical cables, pipes and vent ducts, such penetrations shall be made tight to prevent the passage of flame and smoke.

<sup>(</sup>¹) The International Code for Application of Fire Test Procedures (FTP Code), as adopted by the Maritime Safety Committee of the International Maritime Organisation by resolution MSC. 61(67).

#### Regulation 8: Details of construction

Paragraph (3), Methods IF, IIF and IIIF

(a) Except in cargo spaces or refrigerated compartments of service spaces insulating materials shall be non-combustible. Vapour barriers and adhesives used in conjunction with insulation, as well as the insulation of pipe fittings for cold service systems need not be of non-combustible material, but they shall be kept to the minimum quantity practicable and their exposed surfaces shall have low flame characteristics, this being determined in accordance with the IMO Fire Test Procedures Code. In spaces where penetration of oil products is possible, the surface of insulation shall be impervious to oil or oil vapour.

## Regulation 9: Ventilation systems

Subparagraph (1)(a)

Ventilation ducts shall be of non-combustible material. Short ducts, however, not generally exceeding 2 m in length and with a cross section not exceeding 0,02 m<sup>2</sup> need not be non-combustible, subject to the following conditions:

(i) these ducts shall be of a material which has low flame spread characteristics, this being determined in accordance with the IMO Fire Test Procedures Code.

#### Regulation 11: Miscellaneous items

#### Paragraph (2)

Paints, varnishes and other finishes used on exposed interior surfaces shall not be capable of producing excessive quantities of smoke or toxic gases or vapours, to be determined in accordance with the IMO Fire Test Procedures Code.

## Regulation 12: Storage of gas cylinders and dangerous materials

#### Paragraph (4)

Except as necessary for service within the space, electrical wiring and fittings shall not be permitted within compartments used for the storage of highly flammable liquids or liquefied gases. Where such electrical fittings are installed, they shall be of a certified safe type and comply with the relevant provisions of the International Standard IEC Publication 79 "Electrical apparatus for explosive gas atmospheres". Sources of heat shall be kept clear of such spaces and "No smoking" and "No naked light" notices shall be displayed in a prominent position.

## Regulation 13: Means of escape

## Paragraph (1)

Stairways and ladders leading to and from all accommodation spaces and in spaces in which the crew is normally employed, other than machinery spaces, shall be so arranged as to provide ready means of escape to the open deck and thence to the survival craft. In particular in relation to these spaces:

(e) the continuity of the means of escape shall be to the satisfaction of the Administration. Stairways and corridors used as means for escape shall be not less than 700 mm in clear width and shall have a handrail on at least one side. Doorways which give access to a stairway shall be not less than 700 mm in clear width.

#### Paragraph (2)

Two means of escape shall be provided from every machinery space of category A by one of the following means:

(a) two sets of steel ladders as widely separated as possible leading to doors in the upper part of the space similarly separated and from which access is provided to the open deck. In general, one of these ladders shall provide continuous fire shelter from the lower part of the space to a safe position outside the space. However, the Administration may not require such shelter if, due to special arrangements or dimensions of the machinery space, a safe escape route from the lower part of this space is provided. This shelter shall be of steel, insulated to "A-60" class standard and be provided with a "A-60" class self-closing steel door at the lower end; or

## Regulation 14: Automatic sprinkler and fire alarm and fire detection systems (Method IIF)

## Paragraph (11)

Spare sprinkler heads shall be provided for each section of sprinklers.

Spare sprinkler heads shall include all types and ratings installed in the vessel and shall be provided as follows:

- less than 100 sprinkler heads: 3 spare heads,
- less than 300 sprinkler heads: 6 spare heads,
- 300 to 1 000 sprinkler heads: 12 spare heads.

## Regulation 15: Automatic fire alarm and fire detection systems (Method IIIF)

## Paragraph (4)

The system shall be operated by an abnormal air temperature, by an abnormal concentration of smoke or other factors indicative of incipient fire in any one of the spaces to be protected. Systems which are sensitive to air temperature shall not operate at less than 54 °C and shall operate at a temperature not greater than 78 °C when the temperature increase to those levels is not more than 1 °C per minute. At the discretion of the Administration the permissible temperature of operation may be increased to 30 °C above the maximum deckhead temperature in drying rooms and similar places of normally high ambient temperature. Systems which are sensitive to smoke concentration shall operate on the reduction of the intensity of a transmitted light beam. Smoke detectors shall be certified to operate before the smoke density exceeds 12,5 % obscuration per metre, but not until the smoke density exceeds 2 % obscuration per metre. Other equally effective methods of operation may be accepted at the discretion of the Administration. The detection system shall not be used for any purpose other than fire detection.

## Regulation 17: Fire pumps

### Paragraph (2)

If a fire in any one compartment could put all the fire pumps out of action, there shall be an alternative means of providing water for fire fighting. In vessels of 75 m in length and over this alternative means shall be a fixed emergency fire pump independently driven. This emergency fire pump shall be capable of supplying two jets of water at a minimum pressure of 0,25 N/mm<sup>2</sup>.

## Regulation 20: Fire extinguishers

#### Paragraph (2)

- 1. For each type of fire extinguisher carried, capable of being recharged on board, 100 % spare charges for the first 10 extinguishers shall be provided and 50 % for the remaining extinguishers but not more than 60.
- 2. For fire extinguishers which cannot be recharged on board, at least 50 % additional fire extinguishers of same type and capacity shall be provided in lieu of spare charges.
- Instructions for recharging should be carried on board. Only refills approved for the fire extinguishers in question may be used for recharging.

## Paragraph (4)

Fire extinguishers shall be examined annually by a competent person, authorised by the Administration. Each extinguisher shall be provided with a sign indicating that it has been examined. All containers of permanently pressurised fire extinguishers and propellant bottles of non-pressurised extinguishers shall be hydraulic pressure tested every 10 years.

# Regulation 21: Portable fire extinguishers in control stations and accommodations and service spaces

## Paragraph (2)

- 1. For fire extinguishers, capable of being recharged on board, 100 % spare charges for the first 10 extinguishers shall be provided and 50 % for the remaining extinguishers but not more than 60.
- 2. For fire extinguishers which cannot be recharged on board at least 50 % additional fire extinguishers of same type and capacity shall be provided in lieu of spare charges.
- 3. Instructions for recharging should be carried on board. Only refills approved for the fire extinguishers in question may be used for recharging.

## Regulation 24: Firefighter's outfits

## Paragraph (1)

At least two firefighter's outfits shall be carried. The firefighter's outfits shall be in accordance with the IMO Fire Safety Systems Code, Chapter III, regulations 2.1, 2.1.1 and 2.1.2. Two spare charges shall be provided for each required breathing apparatus.

#### Regulation 25: Firecontrol plan

There shall be a permanently exhibited fire control plan. The contents of such a plan shall be in accordance with IMO Resolution A.654(16) "Graphical symbols for fire control plans" and IMO Resolution A.756(18) "Guidelines on the information to be provided with fire control plans".

## Regulation 28: Structural fire protection

## Subparagraph (2)(a)

In vessels, the hull of which is constructed of non-combustible materials, the decks and bulkheads separating machinery spaces of category A from accommodation spaces, service spaces or control stations shall be constructed to "A-60" class standard where the machinery space of category A is not provided with a fixed fire extinguishing system and to "A-30" class standard where such a system is fitted. Decks and bulkheads separating other machinery spaces from accommodation, service spaces and control stations shall be constructed to "A-0" class standard.

Decks and bulkheads separating control stations from accommodation and service spaces shall be constructed to "A" class standard in accordance with the tables 1 and 2 of regulation 7 of this chapter, except that the Administration may permit the fitting of "B-15" class divisions for separating such spaces as skipper's cabin from the wheelhouse, where such spaces are considered to be a part of the wheelhouse.

#### Regulation 31: Miscellaneous items

#### Paragraph (1)

Exposed surfaces within accommodation spaces, service spaces, control stations, corridor and stairway enclosures and the concealed surfaces behind bulkheads, ceilings, panellings and linings in accommodation spaces, service spaces and control stations shall have low flame spread characteristics, as determined in accordance with the IMO Fire Test Procedures Code.

#### Paragraph (3)

Paints, varnishes and other finishes used on exposed interior surfaces shall not be capable of producing excessive quantities of smoke or toxic gases or vapours, this being determined in accordance with the IMO Fire Test Procedures Code

## Regulation 32: Storage of gas cylinders and dangerous materials

#### Paragraph (4)

Except as necessary for service within the space, electrical wiring and fittings shall not be permitted within compartments used for the storage of highly flammable liquids or liquefied gases. Where such electrical fittings are installed, they shall be of a certified safe type and comply with the relevant provisions of the International Standard IEC Publication 79 "Electrical apparatus for explosive gas atmospheres". Sources of heat shall be kept clear of such spaces and "No smoking" and "No naked light" notices shall be displayed in a prominent position.

## Regulation 38: Fire extinguishers

## Paragraph (2)

- 1. Except in the cases mentioned under 2 (below) for each type of fire extinguishers carried, capable of being recharged on board, 100 % spare charges for the first 10 extinguishers shall be provided and 50 % for the remaining extinguishers, but not more than 60.
- 2. For vessels with a length of less than 45 m and for fire extinguishers which cannot be recharged on board, at least 50 % additional fire extinguishers of same type and capacity shall be provided in lieu of spare charges.
- Instructions for recharging shall be carried on board. Only refills approved for the fire extinguishers in question may be used for recharging.

#### Paragraph (4)

Fire extinguishers shall be examined annually by a competent person, authorised by the Administration. Each extinguisher shall be provided with a sign indicating that it has been examined. All containers of permanently pressurised fire extinguishers and propellant bottles of non-pressurised extinguishers shall be hydraulic pressure tested every 10 years.

## Regulation 39: Portable fire extinguishers in control stations and accommodations and service spaces

## Paragraph (2)

- 1. Except in the cases mentioned under 2 (below) for each type of fire extinguisher carried, capable of being recharged on board, at least 100 % spare charges for the first 10 extinguishers shall be provided and 50 % for the remaining extinguishers but not more than 60.
- 2. For vessels with a length of less than 45 m and for fire extinguishers, which cannot be recharged on board, at least 50 % additional fire extinguishers of same type and capacity shall be provided in lieu of spare charges.
- 3. Instructions for recharging should be carried on board. Only refills approved for the extinguishers in question may be used for recharging.

## Regulation 41: Firefighters outfits

For vessels with a length of 45 m and over at least two fire-fighter' outfits shall be carried and stored in readily accessible and widely separated positions, which are not likely to be cut off in the event of fire. The firefighter's outfits shall be in accordance with the IMO Fire Safety Systems Code, Chapter III, regulations 2.1, 2.1.1 and 2.1.2.

At least two spare charges shall be provided for each required breathing apparatus.

#### Regulation 42: Fire control plan

There shall be a permanently exhibited fire control plan.

The contents of such a plan shall be in accordance with IMO Resolution A.654(16) "Graphical symbols for fire control plans" and IMO Resolution A.756(18) "Guidelines on the information to be provided with fire control plans".

In vessels with a length of less than 45 m, the Administration may dispense with this requirement.

#### CHAPTER VI: PROTECTION OF THE CREW

## Regulation 3: Bulwarks, rails and guards

#### Paragraph (2)

The minimum vertical distance from the deepest operating waterline to the lowest point of the top of the bulwark, or to the edge of the working deck if guard rails are fitted shall ensure adequate protection of the crew from water shipped on deck, taking into account the sea states and the weather conditions in which the vessel may operate, the areas of operation, type of vessel and its method of fishing. The freeboard measured amidships from the edge of the working deck from which fishing is undertaken, shall not be less than 300 mm or not less than the freeboard corresponding with the maximum permissible draught, whichever is the greater. For vessels with sheltered working decks, which are so arranged that water will not enter the sheltered working spaces no minimum freeboard other than the one corresponding with the maximum permissible draught is required.

## Regulation 4: Stairways and ladders

For the safety of the crew, stairways and ladders of adequate size and strength with handrails and non-slip treads shall be provided and constructed in accordance with the relevant ISO standards.

#### CHAPTER VII: LIFE-SAVING APPLIANCES AND ARRANGEMENTS

# Regulation 3: Evaluation, testing and approval of life-saving appliances and arrangements

## Paragraph (2)

Before giving approval to life-saving appliances and arrangements, the Administration shall ensure that such life-saving appliances and arrangements are tested, to confirm that they comply with the requirements of this chapter, in accordance with the requirements of Council Directive 96/98/EC ( $^1$ ) on marine equipment which includes the IMO Recommendations on Testing of Life-Saving Appliances.

## Paragraph (6)

Life-saving appliances required by this chapter for which detailed specifications are not included in part C shall be to the satisfaction of the Administration, taking into consideration the detailed specifications as given for those appliances in Chapter III of Solas 1974, as amended, and in the IMO International Life-Saving Appliance Code.

# Regulation 6: Availability and stowage of survival craft and rescue boats

Subparagraph (4)(a)

Each survival craft shall be stowed:

- so that neither the survival craft nor its stowage arrangements will interfere with the operation of any other survival craft or rescue boat at any other launching location,
- as near to the water surface as is safe and practicable and, in the case of a survival craft other than a liferaft intended for throw over board launching, in such a position that the survival craft in the embarkation position is not less than  $2\,$  m above the waterline with the vessel in fully loaded condition under unfavourable conditions of trim of up to  $10\,$ ° and listed up to  $20\,$ ° either way, or to the angle at which the ship's weatherdeck edge becomes submerged, whichever is less,
- in a state of continuous readiness so that the crew members can carry out preparations for embarkation and launching in less than 5 min.,
- fully equipped as required by this chapter.

# Regulation 23: Rescue boats

Subparagraph (1)(b)

Rescue boats may be either of rigid or inflated construction or combination of both and shall:

- (i) be not less than 3,8 m and not more than 8,5 m in length, except for vessels with a length of less than 45 m where, owing to the size of the vessel, or for other reasons where the carriage of such boats is considered unreasonable or impracticable, the Administration may accept a rescue boat of a lesser length but not less than 3,3 m;
- (ii) be capable of carrying at least five seated persons and one person lying down or for vessels with a length of less than 45 m, in the case of a rescue boat less than 3,8 m, be capable of carrying at least four persons seated and one person laying down.

Subparagraph (1)(c)

The number of persons which a boat shall be permitted to accommodate shall be determined by the Administration by means of a seating test. The minimum carrying capacity shall be as given in regulation 23(1)(b)(ii). Seating, except for the helmsman, may be provided on the floor. No part of a seating position shall be on the gunwale, transom, or on inflated buoyancy at the sides of the boat.'