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STATUTORY INSTRUMENTS

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**2003 No. 2951**

**MERCHANT SHIPPING  
SAFETY**

**The Merchant Shipping (Fire Protection)  
Regulations (Amendment) Regulations 2003**

*Made - - - - 14th November 2003*  
*Laid before Parliament 19th November 2003*  
*Coming into force - - 11th December 2003*

The Secretary of State, after consulting the persons referred to in section 86(4) of the Merchant Shipping Act 1995(1), in exercise of the powers conferred upon him by section 85(1)(a) and (b), (3) and (5) to (7) and section 86(1) of that Act, hereby makes the following Regulations:

**Citation, commencement and interpretation**

1.—(1) These Regulations may be cited as the Merchant Shipping (Fire Protection) Regulations (Amendment) Regulations 2003 and shall come into force on 11th December 2003.

(2) In these Regulations “the principal Regulations” means the Merchant Shipping (Fire Protection: Large Ships) Regulations 1998(2).

**Interpretation of principal Regulations**

2.—(1) In regulation 1(2) of the principal Regulations, after the definition of “EEA State” there shall be inserted:

““emergency escape breathing device” means such a device which complies with the International Code for Fire Safety Systems contained in MSC Resolution 98(73) of 5th December 2000;”.

**Application of principal Regulations**

3.—(1) In regulation 1(7)(a)(i) of the principal Regulations, for “(b) and (c) below” there shall be substituted “(b) to (f)”.

(2) After regulation 1(7)(c) of the principal Regulations there shall be inserted:

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(1) 1995 c. 21; sections 85 and 86 were amended by the Merchant Shipping and Maritime Security Act 1997 (c. 28), section 8.  
(2) S.I. 1998/1012, amended by S.I. 1999/992, S.I. 2000/2687, S.I. 2001/1638 and S.I. 2002/.

- “(d) regulation 12A, 25A or 34A (as appropriate to the class of the ship), and regulations 50A, 50B and 50C, shall apply to a ship on and after the date of the first survey of that ship on or after 1st January 2004 which is required to be undertaken in accordance with the Merchant Shipping (Survey and Certification) Regulations 1995<sup>(3)</sup>;
- (e) regulation 32A shall apply to a ship on and after whichever of the following dates comes first:
  - (i) the date of the first scheduled dry-docking of the ship after 1st January 2004, or
  - (ii) 1st July 2005;
- (f) regulation 7(5) to (9) shall apply to a ship on and after 1st October 2005.”.

**Principal Regulations: Repairs, alterations etc.**

4.—(1) After regulation 1(7) of the principal Regulations there shall be inserted:

**“Repairs, alterations, modification and outfitting**

(7A) Where a ship to which these Regulations apply also complies with a requirement of the Merchant Shipping (Fire Protection) Regulations 2003<sup>(4)</sup> which is additional to the requirements of these Regulations, the repair, alteration, modification or outfitting of the ship shall not affect the continued compliance of the ship with that additional requirement.

(7B) Subject to paragraph (7C), repairs, alterations and modifications which substantially alter the dimensions of a ship or the passenger accommodation spaces, or which substantially increase a ship’s service life, and outfitting relating to such repairs, alterations and modifications, shall comply with such requirements of the Merchant Shipping (Fire Protection) Regulations 2003 as would have applied to that ship had that ship been constructed on or after 1st July 2002.

(7C) The Secretary of State may grant exemptions from all or any of the provisions of the previous paragraph for individual cases or classes of cases on such terms (if any) as he may specify, if he is satisfied that—

- (a) compliance with such provision is either impracticable or unreasonable in that case or cases, and
- (b) the exemption is subject to such conditions and limitations as will provide a level of safety which is at least equivalent to that provided by the provision or provisions from which exemption is being granted.

(7D) The Secretary of State may, on giving reasonable notice, alter or cancel any exemption granted under paragraph (7C).

(7E) An exemption granted under paragraph (7C) and an alteration or cancellation under paragraph (7D) shall be given in writing and shall specify the date on which it takes effect and the terms (if any) on which it is given.”

**Principal Regulations: Machinery spaces of Category A**

5.—(1) At the end of regulation 7 of the principal Regulations there shall be inserted:

“(5) Where a ship of Class I of 2000 gross tonnage and above has one or more machinery spaces of Category A which are above 500 cubic metres in volume, each such machinery space shall, in addition to the fixed fire-extinguishing system required by paragraph (1) above, be protected by an approved type of fixed water-based or equivalent local application

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(3) S.I. 1995/1210, amended by S.I. 1196/2418, S.I. 2000/1334 and S.I. 2000/2687.

(4) S.I. 2003/2950.

fire-fighting system, in accordance with the International Maritime Organisation guidelines contained in MSC Circular 913 of 4th June 1999.

(6) Where the machinery space protected by the fixed fire-fighting system required by paragraph (5) is periodically unattended, that fire-fighting system shall have both automatic and manual release capabilities.

(7) Where the machinery space protected by the fixed fire-fighting system required by paragraph (5) is continually manned, that fire-fighting system shall have a manual release capability.

(8) A fixed fire-fighting system required by paragraph (5) shall protect the following areas without the necessity of engine shut-down, personnel evacuation or sealing of the spaces:

- (a) the fire hazard portions of internal combustion machinery used for the ship's main propulsion and power generation,
- (b) boiler fronts,
- (c) the fire hazard portions of incinerators, and
- (d) purifiers for heated fuel oil.

(9) In addition to the detection and fire alarm systems required elsewhere in these Regulations, a fixed fire-fighting system required by paragraph (5) shall when activated give a visual and distinct audible alarm, in the protected space and at continuously manned stations, indicating the specific system activated.”.

**Principal Regulations: Fire detection and alarm systems etc.**

6. In regulation 24(2) of the principal Regulations, for “MSN 1662” there shall be substituted “MSN 1666”.

**Principal Regulations: Emergency escape breathing devices**

7.—(1) After regulation 12 of the principal Regulations there shall be inserted:

**“Emergency escape breathing devices**

**12A.**—(1) Every ship of Class I carrying more than 36 passengers shall be provided with at least four emergency escape breathing devices in each main vertical zone.

(2) Every other ship of Class I shall be provided with at least two emergency escape breathing devices in each main vertical zone.

(3) Every ship of Class I shall be provided with emergency escape breathing devices situated ready for use within the machinery spaces at easily visible places which can be reached quickly and easily at any time in the event of fire, taking into account the layout of the machinery space and the number of persons normally working in the spaces in accordance with International Maritime Organisation guidelines for the performance, location, use and care of emergency escape breathing devices contained in MSC Circular 849 of 8th June 1998.

(4) The number and location of the devices provided in accordance with paragraph (3) shall be indicated in the fire control plan required by regulation 49.

(5) Training in the use of emergency escape breathing devices shall be included in the on-board training of each crew member as soon as possible, or in any event not more than two weeks, after he first joins the ship.

(6) In this Regulation “main vertical zone” does not include:

- (a) stairway enclosures which constitute individual main vertical zones, or

- (b) main vertical zones in the fore or aft end of a ship which do not contain spaces of categories (6), (7), (8) or (12) set out in paragraph 1 of Schedule 1 of Merchant Shipping Notice MSN 1667.”.

(2) After regulation 25 of the principal Regulations there shall be inserted:

**“Emergency escape breathing devices**

**25A.**—(1) Every ship of Class VII of 500 tons or over shall be provided with at least two emergency escape breathing devices in accommodation spaces.

(2) Every such ship shall be provided with emergency escape breathing devices situated ready for use within the machinery spaces at easily visible places which can be reached quickly and easily at any time in the event of fire, taking into account the layout of the machinery space and the number of persons normally working in the spaces in accordance with International Maritime Organisation guidelines for the performance, location, use and care of emergency escape breathing devices contained in MSC Circular 849 of 8th June 1998.

(3) Training in the use of emergency escape breathing devices shall be included in the on-board training of each crew member as soon as possible, or in any event not more than two weeks, after he first joins the ship.

(4) The number and location of the devices provided in accordance with paragraph (2) shall be indicated in the fire control plan required by regulation 49.”.

(3) In regulation 28(2), (8) and (11) of the principal Regulations, for “23 and 25” there shall be substituted “23, 25 and 25A”.

(4) In regulation 28(5) of the principal Regulations, after “23” there shall be inserted “and 25A”.

(5) After regulation 34 of the principal Regulations there shall be inserted:

**“Emergency escape breathing devices**

**34A.**—(1) Every ship of Class VII(T) of 500 tons or over shall be provided with at least two emergency escape breathing devices in accommodation spaces.

(2) Every such ship shall be provided with emergency escape breathing devices situated ready for use within the machinery spaces at easily visible places which can be reached quickly and easily at any time in the event of fire, taking into account the layout of the machinery space and the number of persons normally working in the spaces in accordance with International Maritime Organisation guidelines for the performance, location, use and care of emergency escape breathing devices contained in MSC Circular 849 of 8th June 1998.

(3) Training in the use of emergency escape breathing devices shall be included in the on-board training of each crew member as soon as possible, or in any event not more than two weeks, after he first joins the ship.

(4) The number and location of the devices provided in accordance with paragraph (2) shall be indicated in the fire control plan required by regulation 49.”.

(6) In regulation 35 of the principal Regulations for “34” there shall be inserted “34A”.

(7) In regulation 36(b) of the principal Regulations after “inclusive” there shall be added “and regulation 34A”.

**Principal Regulations: Cargo tank purging and/or gas freeing**

**8.** Before the words “Requirements for ships constructed on or after 1st September 1984” which appear before regulation 31 of the principal Regulations, there shall be inserted:

“**30A.**—(1) Where a tanker of Class VII(T) of 500 tons or over which is used to carry crude oil and petroleum products having a closed flashpoint not exceeding 60°C, and Reid vapour pressure below atmospheric pressure, and other liquids having a similar fire hazard, is provided with an inert gas system, the cargo tanks shall first be purged in accordance with the provisions of paragraph 12 of Part IV of the Guidelines for Inert Gas Systems until the concentration of hydrocarbon vapours in the cargo tanks has been reduced to less than two per cent by volume.

(2) Gas-freeing may take place at the cargo tank deck level:

- (a) after cargo tanks have been purged in accordance with paragraph (1), or
- (b) if the flammable vapour concentration at the outlet has been reduced to 30 per cent of the lower flammable limit.”.

### **Principal Regulations: Gas monitoring systems for tankers and combination carriers**

9.—(1) After regulation 32 of the principal Regulations there shall be inserted:

#### **“Gas monitoring and ignition protection systems for tankers and combination carriers**

**32A.**—(1) Every tanker of Class VII(T) of 500 tons or over which is used to carry crude oil and petroleum products having a closed flashpoint not exceeding 60°C, and Reid vapour pressure below atmospheric pressure, and other liquids having a similar fire hazard, shall comply with paragraphs (2) to (4).

(2) The tanker shall have fitted a system for continuous monitoring within cargo pump rooms of the concentration of hydrocarbon gases which complies with the following requirements:

- (a) sampling points or detector heads shall be located in suitable positions in order that potentially dangerous leakages are readily detected, and
- (b) in order to alert personnel to the potential hazard, a continuous audible and visual alarm signal shall be automatically effected in the pump-room and cargo control room when the hydrocarbon gas concentration reaches a pre-set level which:
  - (i) if the monitoring system was fitted before 1st July 2002, shall not be higher than 30 per cent of the lower flammable limit, and
  - (ii) in all other cases shall not be higher than ten per cent of the lower flammable limit.

(3) Cargo pumps, ballast pumps and stripping pumps installed in cargo pump-rooms and driven by shafts passing through pump-room bulkheads shall be fitted with temperature sensing devices for bulkhead shaft glands, bearings and pump casings. A continuous audible and visual alarm signal shall be automatically effected in the cargo control room or the pump control station.

(4) All pump rooms shall be provided with bilge level monitoring devices together with appropriately located alarms.”.

### **Principal Regulations: Deep-fat cooking equipment**

10.—(1) After regulation 48 of the principal Regulations there shall be inserted:

#### **“Deep-fat cooking equipment**

**48A.** Deep fat cooking equipment installed after 1st July 2002 shall be fitted with:

- (a) an automatic or manual extinguishing system which complies with the requirements of the Merchant Shipping (Marine Equipment) Regulations 1999<sup>(5)</sup>,
- (b) a primary and back-up thermostat with an alarm to alert the operator in the event of failure of either thermostat,
- (c) arrangements for automatically shutting off the electrical power upon activation of the extinguishing system.
- (d) an alarm for indicating operation of the extinguishing system in the galley where the equipment is installed, and
- (e) controls for manual operation of the extinguishing system which are clearly labelled for ready use by the crew.”.

**Principal Regulations: Operational readiness and maintenance**

11. After regulation 50 of the principal Regulations, there shall be inserted:

**“Maintenance plan**

**50A.**—(1) Maintenance, testing and inspections of systems and appliances required in accordance with these Regulations shall be carried out based on the International Maritime Organisation guidelines on maintenance and inspection of fire protection systems and appliances contained in MSC Circular 850 of 8th June 1998.

(2) A maintenance plan shall be kept on board the ship and shall be available for inspection whenever required by Secretary of State.

(3) The maintenance plan kept in accordance with paragraph (2) shall include at least the following fire protection systems and fire-fighting systems and appliances, where installed:

- (a) fire mains, fire pumps and hydrants including hoses, nozzles and international shore connections,
- (b) fixed fire detection and fire alarm systems,
- (c) fixed fire-extinguishing systems and other fire extinguishing appliances,
- (d) automatic sprinkler, fire detection and fire alarm systems,
- (e) ventilation systems including fire and smoke dampers, fans and their controls,
- (f) emergency shut-down of fuel supply,
- (g) fire doors including their controls,
- (h) general emergency alarm systems,
- (i) emergency escape breathing devices,
- (j) portable fire extinguishers including spare charges, and
- (k) fire-fighter’s outfits.

(4) The maintenance plan for a ship carrying more than 36 passengers shall also include:

- (a) low location lighting, and
- (b) public address systems.

(5) The maintenance plan for a tanker shall also include:

- (a) inert gas systems,
- (b) deck foam systems,

- (c) fire safety arrangements in cargo pump rooms, and
- (d) detectors for flammable gas.

### **Training manuals**

**50B.**—(1) A training manual, which may comprise several volumes, shall be provided in each crew mess room and recreation room or in each crew cabin.

(2) The training manual shall be written in the working language of the ship, and shall contain the instructions and information in easily understood terms and illustrated wherever possible.

(3) Any part of the information may be provided in the form of audio-visual aids in place of the manual.

(4) The training manual shall explain in detail:

- (a) general fire safety practice and precautions related to the dangers of smoking, electrical hazards, flammable liquids and similar common shipboard hazards,
- (b) general instructions on fire-fighting activities and fire-fighting procedures including procedures for notification of a fire and use of manually operated call points,
- (c) meanings of the ship's alarms,
- (d) operation and use of fire-fighting systems and appliances,
- (e) operation and use of fire doors,
- (f) operation and use of fire and smoke dampers, and
- (g) escape systems and appliances.

### **Fire safety operations booklet**

**50C.**—(1) A fire safety operations booklet, which may be combined with the training manual required by regulation 50B, shall be provided in each crew mess room and recreation room or in each crew cabin.

(2) The fire safety operations booklet shall be written in the working language of the ship, and shall contain the instructions and information in easily understood terms and illustrated wherever possible.

(3) The fire safety operations booklet shall include:

- (a) the necessary information and instructions for the safe operation of the ship and of cargo handling operations in relation to fire safety,
- (b) information concerning the crew's responsibilities for the general fire safety of the ship while loading and unloading and discharging cargo and while underway,
- (c) an explanation of the necessary fire safety precautions for handling general cargoes,
- (d) where the ship is carrying dangerous goods or inflammable bulk cargoes, references to the relevant fire-fighting and emergency cargo-handling instructions contained in the Code of Safe Practice for Solid Bulk Cargoes, the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk, the International Code for the Construction and Equipment of Ships Carrying Liquified Gases in Bulk, and the International Maritime Dangerous Goods Code, as appropriate.

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(4) The fire safety operations booklet for a tanker shall also include provisions for preventing fire spread to the cargo area due to ignition of flammable vapours and include procedures of cargo tank gas-purging and/or gas-freeing taking into account the provisions in regulation 30A.”.

**Amendment of Merchant Shipping (Fire Protection: Small Ships) Regulations 1998**

**12.** Regulation 1(7)(a)(i) of the Merchant Shipping (Fire Protection: Small Ships) Regulations 1998(6) shall be amended as follows:

- (a) after “VII(A)” there shall be inserted “VII(T)”,
- (b) after “VIII(A)” there shall be inserted “VIII(T), VIII(A)(T), and
- (c) after “IX” there shall be inserted “IX(A)(T)”.

Signed by authority of the Secretary of State for Transport

14th November 2003

*David Jamieson*  
Parliamentary Under-Secretary of State,  
Department for Transport

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(6) S.I. 1998/1011, amended by S.I. 1999/992 and S.I. 2000/2687.



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## EXPLANATORY NOTE

*(This note is not part of the Regulations)*

These Regulations implement requirements of Chapter II-2 of the International Convention for the Safety of Life at Sea 1974 (“the SOLAS Convention”) as amended by its Protocol of 1988 and by Resolution MSC.99(73) of December 2000 of the Maritime Safety Committee of the International Maritime Organisation, and make other amendments to the Merchant Shipping (Fire Protection: Large Ships) Regulations 1998 (S.I.1998/1012) (“the Large Ships Regulations”) and the Merchant Shipping (Fire Protection: Small Ships) Regulations 1998 (S.I. 1998/1011) (“the Small Ships Regulations”).

The amendments to the Large Ships Regulations, which will apply from the dates mentioned in regulation 3:

- (a) impose requirements as to the standards for repairs, alterations, etc. (*regulation 4*),
- (b) require fixed local application fire-fighting systems to be installed in Category A machinery spaces of Class I, II, IIA ships of over 2,000 gross tons (*regulation 5*),
- (c) require emergency escape breathing devices to be installed in passenger ships of Class I, Class II and Class 11A, and other ships of over 500 gross tons (*regulation 7*),
- (d) impose additional requirements as to cargo tank purging and/or gas freeing and as to gas monitoring systems for tankers of over 500 gross tons (*regulations 8 and 9*),
- (e) impose requirements as to deep-fat cooking equipment (*regulation 10*),
- (f) impose requirements as to maintenance plans, training manuals and fire safety operations booklets (*regulation 11*).

The amendments to the Small Ships Regulations clarify the application of those Regulations as respects the ships referred to in regulations 24 to 29 of those Regulations.

A Regulatory Impact Assessment has been prepared and copies can be obtained from the Maritime and Coastguard Agency, Spring Place, 105 Commercial Road, Southampton SO15 1EG. A copy has been placed in the Library of each House of Parliament.

Merchant Shipping Notices can be obtained from Mail Marketing (Scotland), Unit 6, Blooms Grove Industrial Estate, Norton Street, Nottingham NG7 3JG.

The SOLAS Convention, its Protocols and IMO resolutions and circulars can be obtained from the International Maritime Organisation, 4 Albert Embankment, London SE1 7SR.