Future IMO legislation

February 2003



This publication, provides an overview of the amendments to the existing SOLAS and MARPOL regulations and instruments, mandatory under these conventions, which have been adopted since the last edition of this publication.

It also contains details of legislation that entered into force well before January 1, 2003, but whose application depends on other factors, such as ship age.



Building better business

Part 1.

INTRODUCTION

A number of amendments to the existing SOLAS and MARPOL regulations and instruments, mandatory under these conventions, have been adopted since the last edition of this publication.

These amendments came as a result of IMO meetings, in particular, MSC 75 (May 2002), MEPC 48 (October 2002), MSC 76 (December 2002) and the SOLAS Diplomatic Conference on Maritime Security.

The amendments pertain to:

- 1. SOLAS chapters II-1, II-2, III, IV, V, VI, VII, XI, XII. Amendments to chapters VI and VII the MDG Code mandatory (see section 4).
- 2. Appendix to Annex to Protocol 88 of SOLAS 74;
- 3. Resolution A.744(18), as amended;
- 4. IMDG Code
- 5. INF Code
- 6. CAS, mandatory under regulation 13G of MARPOL 73/78

The publication contains two tables (Table 1 – New Ships; Table 2 – Existing Ships), which direct the reader to the regulation detailed in the legislation described in Part 2 by means of a marker (e.g. (21)), which is attributed to the individual regulation or group of regulations in Part 2.

Together with regulations that are yet to enter into force, the description contains also legislation that entered into force well before 1 January 2003, however the application date is determined by ships' age, criteria derived from a formula, ships' dimensions, etc, which bring application of the requirement forward beyond entry into force date. To make it easy to read and for reference purposes only, such cases contain reference to Part 3 of this publication, which shows the complete range of dates and conditions appearing under the specific regulation.

Part 4 contains the list of authorisations from flag States to Lloyds Register.

Table 1 – **NEW SHIPS**

	Passenger Vessel	Ro-ro Passenger Vessel	Oil Tanker	Chemical Tanker	Gas Carrier	Bulk Carrier	Container Vessel	General Cargo Vessel	Ro-ro cargo Vessel
1/01/03	14	14	12, 14, 20	20, 14	20, 14	12, 14	14, 15	14, 15, 20	14, 15, 20
1/01/04	25, 29, 30	25, 28,	25, 29, 35	25, 29	25, 29	25, 29, 35	25, 28,	25, 28,	25, 28,
		29, 36					29, 36	29, 36	29, 36
1/07/04	39b, 39c,	39b, 39c,	39b, 39c,	39b, 39c,	39b, 39c,	39a, 39b,	39b, 39c,	39b, 39c,	39b, 39c,
	39f, 39g	39d, 39f,	39f, 39g	39f, 39g	39f, 39g	39c, 39f,	39f, 39g	39f, 39g	39f, 39g
		39g				39g			
1/01/05			40a			40a			

Table 2 - **EXISTING SHIPS**

	Passenger Vessel	Ro-ro Passenger Vessel	Oil Tanker	Chemical Tanker	Gas Carrier	Bulk Carrier	Container Vessel	General Cargo Vessel	Ro-ro cargo Vessel	High Speed Craft
Prior to	4, 6, 7,	4, 6, 7,	4, 5, 6,	4, 5, 6,	4, 5, 6,	1, 2, 3,	4, 6, 7,	4, 6, 7,	4, 6, 7,	
1/01/03	8, 10	8, 9, 10	7, 8, 10,	7, 8, 10,	7, 8, 10	4, 6, 7,	8, 10	8, 10	8, 10	
			12, 13	11		8, 10, 12				
1/01/03	14, 20	14, 20	14, 19,	14, 20	14, 20	14, 20	14, 15,	14, 15,	14, 15,	17, 18,
			20				20	20	20	20
1/07/03	21, 22	21	21, 23	21, 23	21, 23	21	21	21	21	21, 24
1/01/04	25, 26,	25, 27,	25, 27,	25, 27,	25, 27,	25, 27,	25, 27,	25, 27,	25, 27,	37
	27, 29	28, 29,	29, 35	29	29	29, 35	28, 29,	28, 29,	28, 29,	
		36					36	36	36	
1/03/04			38							
1/07/04	39c, 39f,	39c,	39c, 39f,	39c, 39f,	39c, 39f,	39, 39a,	39, 39c,	39, 39c,	39, 39c,	39f, 39g
	39g	39d,	39g	39g	39g	39c,	39e, 39f,	39e, 39f,	39e, 39f,	
		39f, 39g				39e, 39f, 39g	39g	39g	39g	
1/10/04		40								
1/10/05	43, 44	42, 43,	_	_						
		44								
1/07/06			_	_						46
1/07/07										48
1/07/08	49	49	49	49	49	49	49	49	49	49
1/10/10	51	50, 51								
13G			13							

Part 2.

NARRATIVE SUMMARY OF FUTURE IMO LEGISLATION

PRE 1 JANUARY 2003

Legislation which entered into force prior to 1 January 2003, whose applicability continues after that date.

SOLAS 1974 as amended:

Chapter XII - Additional safety measures for bulk carriers

The SOLAS Conference in November 1997 adopted a new Chapter XII incorporating measures aimed at improving the safety of both new and existing single side skinned bulk carriers of 150m and upwards.

Existing bulk carriers built before (see REG. II-1/1) 1 July 1999 are to comply with the requirements in accordance with REG. 3 – implementation schedule.

(1) REG. 3 – IMPLEMENTATION SCHEDULE

Existing bulk carriers are to implement regulations 4 and 6 in accordance with the following schedule:

- Bulk carriers of 20 years of age and over on 1 July 1999 are to comply by the date of the *first intermediate or special survey after* 1 *July* 1999, *whichever comes first*.
- Bulk carriers of less than 15 years of age on 1 July 1999 are to comply by the date of the first special survey after the date on which the ship reaches 15 years of age, but not later than the date on which it reaches 17 years of age.

(for the complete implementation schedule please refer to Part 3, Section 2)

REG. 4 - DAMAGE STABILITY

Existing bulk carriers built before I July 1999 designed to carry cargoes with a density of 1.78t/m 3 and above will have to withstand flooding of the foremost cargo hold in all loading conditions.

REG. 6 – STRUCTURAL AND OTHER REQUIREMENTS FOR BULK CARRIERS CONSTRUCTED BEFORE 1 JULY 1999

Bulk carriers constructed before 1 July 1999 carrying cargoes with a density of 1.78t/m 3 and above, the bulkhead between the two foremost cargo holds and the double bottom in way of the foremost cargo hold are to have sufficient strength to withstand flooding of the foremost cargo hold in accordance with standards adopted by the Conference.

REG. 9 – REQUIREMENTS FOR BULK CARRIERS CONSTRUCTED BEFORE 1 JULY 1999 WHICH CANNOT COMPLY WITH THE DAMAGE STABILITY REQUIREMENTS OF REGULATION

- For the foremost cargo hold, the inspections prescribed for the annual survey in the ESP shall be replaced by the inspections prescribed therein for the intermediate survey of cargo holds.
- ii. Bilge level alarms are to be provided in all holds.
- iii. Information on cargo hold flooding scenarios together with evacuation preparedness instruction are to be provided.

(2) REG. 7 – SURVEY OF CARGO HOLD STRUCTURE

Bulk carriers 10 years of age and over from the *1 July 1999* carrying cargoes with a density of 1.78t/m 3 and above, will not be permitted to carry such cargoes unless they have undergone either a *special survey* under the Enhanced Survey Programme (ESP) or a survey of the cargo holds which is of the same extent as required for *a special survey* under ESP.

(3) REG. 11 – LOADING INSTRUMENTS

Bulk carriers constructed before 1 July 1999 are to be provided with a loading instrument capable of providing information on hull girder shear force and bending moments not later than the *first periodical or intermediate survey after 1 July 1999, which ever comes first*.

1988 Protocol to SOLAS 1974 as amended: The Harmonised System of Survey and Certification (HSSC)

(4) The 1988 protocols to SOLAS 1974, ILLC 1966, and amendments to MARPOL 73/78 legislation, which entered into force on 3 February 2000, allow the harmonisation of SOLAS, Load Line and MARPOL surveys and certification with a five year period of validity for all 1974 SOLAS Certification for cargo ships including Safety Radio and Safety Equipment, the current validity of which is one year and two years respectively.

Harmonized certification is required to be endorsed annually in respect of statutory Safety Radio, Safety Equipment, Load Line and MARPOL surveys. Passenger Ship Safety Certificates will continue to be of one year validity.

The owner or manager in association with the certifying authority decides on a convenient date on which to introduce the harmonized system of survey and certification for each particular ship. They may decide as mutually convenient the expiry date of one of the existing certificates but, in no case can it be later than the expiry date of the Cargo Ship Safety Construction Certificate. Notwithstanding that some certificates will still be in force when the harmonized system is introduced, renewal surveys will need to be carried out whether or not they are due and a new set of certificates issued.

It must be understood that this scheme does not change the requirements for survey. The certificates require to be endorsed annually for each of the relevant surveys, with an intermediate survey being carried out at the second or third annual surveys equivalent to a current renewal or periodical survey. IMO have issued guidelines for these surveys in IMO Assembly Resolution A. 746 (18) "Survey Guidelines under the Harmonized system of Survey and Certification".

SOLAS 1974 as amended:

Chapter II-2 – Fire protection, fire detection and fire extinction (MSC.99(73))

The new Chapter II-2 requires that existing ships are to comply with the old version of the Chapter as amended by MSC resolutions up to and including MSC 57(67). In addition, a number of additional requirements are introduced for existing ships; the

applicable ones (time-wise) are as follows (For the full list of regulations of new Chapter II-2 applicable to existing ships please refer to Part 3, Section 3):

(5) REG. 1 – APPLICATION

6.7 The arrangements required by regulations 4.5.10.1.1 (regarding temperature sensing devices on pump room bulkhead shaft glands, bearings and pump casings) and 4.5.10.1.4 (regarding bilge level monitoring devices in pump rooms), and a system for continuous monitoring of the concentration of hydrocarbon gases shall be fitted on all existing tankers by the date of the first scheduled dry-docking after 1 July 2002, but not later than 1 July 2005. Sampling points or detector heads shall be located in suitable positions in order that potentially dangerous leakages are readily detected. When the hydrocarbon gas concentration reaches a pre-set level which shall not be higher than 10% of the lower flammable limit, a continuous audible and visual alarm signal shall be automatically effected in the pump-room and cargo control room to alert personnel to the potential hazard. However, existing monitoring systems already fitted having a pre-set level not greater than 30% of the lower flammable limit may be accepted.

(6) REG. 13 – MEANS OF ESCAPE

Existing ships are to comply with the requirements of paragraphs 3.4.2 to 3.4.5 and 4.3 by the date of *the first survey after* 1 *July* 2002:

- **-3.4.2** All ships shall carry at least two emergency escape breathing devices within accommodation spaces.
- **-3.4.3** In passenger ships, at least two emergency escape breathing devices shall be carried in each main vertical zone.
- **-3.4.4** In passenger ships carrying more than 36 passengers, two emergency escape breathing devices, in addition to those required in paragraph 3.4.3 above, shall be carried in each main vertical zone.
- -3.4.5 However, paragraphs 3.4.3 and 3.4.4 do not apply to stairway enclosures which constitute individual main vertical zones and for the main vertical zones in the fore or aft end of a ship which do not contain spaces of categories (6), (7), (8) or (12) defined in regulation 9.2.2.3.
- -4.3 Emergency escape breathing devices
- **-4.3.1** On all ships, within the machinery spaces, emergency escape breathing devices shall be situated ready for use at easily visible places, which can be reached quickly and easily at any time in the event of fire. The location of emergency escape breathing devices shall take into account the layout of the machinery space and the number of persons normally working in the spaces, taking into account the Guidelines for the performance, location, use and care of emergency escape breathing devices contained in MSC/ Circ.849.
- **-4.3.2** The number and location of these devices shall be indicated in the fire control plan.
- **-4.3.3** Emergency escape breathing devices shall comply with the *Fire Safety Systems Code*.

PART E - OPERATIONAL REQUIREMENTS

(7) Existing ships are required to comply with the whole of Part E (Regulations 14 to 16), with the exception of Regulations 16.3.2.2 and 16.3.2.3 not later than the date of *the first survey after 1 July 2002*.

REG.14 - OPERATIONAL READINESS AND MAINTENANCE

The purpose of this Regulation is to maintain and monitor the effectiveness of the fire safety measures with which the ship is provided. It requires all arrangements to be maintained ready for use and to be properly tested and inspected. Maintenance, testing and inspections are to be carried out in accordance with the guidelines contained in MSC/Circ. 850. In addition, a maintenance plan is required to be kept on board and made available for inspection when required by the Administration.

REG. 15 - INSTRUCTIONS, ONBOARD TRAINING AND DRILLS

The purpose of this regulation is to mitigate the consequences of fire by means of proper instructions for training and drills of persons on board in correct procedures under emergency conditions. It provides for instructions, onboard training and drills, the provision of training manuals, fire control plans, etc. Additional requirements for passenger ships are also stipulated.

REG. 16 – OPERATIONS

The purpose of Regulation 16 is to provide information and instructions for proper ship and cargo handling operations in relation to fire safety. It provides for the provision of fire safety operational booklets on board and for the control of flammable vapour releases from cargo tank venting on tankers.

Chapter V - Safety of Navigation (MSC.99(73))

Chapter V has been completely revised. Some of the amendments are applicable to existing ships. Those ones that are applicable under this Part of publication are highlighted below. (For the full list of changes addressed by new Chapter V applicable to existing ships please refer to Part 3, Section 4)

(8) REG 19.1.2.2

The fitting of a receiver for a global navigation satellite system or terrestrial radionavigation system shall be not later than *the first survey after 1 July 2002*. Following the fitting of such equipment, the radio direction finder may be removed.

(9) REG. 20

- 1. To assist in casualty investigations, ro-ro passenger ships constructed before 1 July 2002, when engaged on international voyages, subject to the provisions of regulation 1.4, shall be fitted with a voyage data recorder (VDR) not later than *the first survey on or after 1 July 2002*.
- 2. Administrations may exempt ships, other than ro-ro passenger ships, constructed before 1 July 2002 from being fitted with a VDR where it can be demonstrated that interfacing a VDR with the existing equipment on the ship is unreasonable and impracticable.

International Code for Fire Safety Systems (FSS Code) (MSC 98(73))

(10) MSC 73 adopted the FSS Code which contains technical standards for fire fighting systems and equipment. Existing ships are to comply with the Code as per regulation II-2/13.4.3.3 by the date of *first survey after 1 July 2002*.

International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) (MSC.102.73)) and

the Code for the construction and equipment of ships carrying dangerous chemicals in bulk (BCH Code) (MSC.106(73))

(11) The IBC and BCH Codes have been amended and, *inter alia*, requirements have been introduced for secondary tank venting systems on both new and existing ships. Existing ships are to comply with these requirements by the date of *the first scheduled dry-docking after 1 July 2002 but not later than 1 July 2005*. However, the Administration may accept a relaxation from this requirement for ships of less than 500 gross tonnage.

Guidelines on the enhanced programme of inspections during surveys of bulk carriers and oil tankers (Resolution A.744(18) (MSC.105(73))

(12) MSC 73 adopted amendments to Resolution A.744(18) requiring that from 1 *July* 2002, for bulk carriers and oil tankers of 15 years of age and over, inspection of the outside of the ship's bottom should be carried out with the ship in dry dock. For ships of less than 15 years of age, alternate inspections of the ship's bottom not conducted in conjunction with the enhanced survey during the periodical survey may be carried out with the ship afloat. Inspection of the ship afloat should only be carried out when the conditions are satisfactory and the proper equipment and suitably qualified staff are available.

Owners and operators are strongly advised to consider their docking requirements well ahead of schedule in order to comply with this new requirement.

In addition, for oil tankers of 130 metres in length and upwards, the ship's longitudinal strength is to be evaluated by using the thickness of structural members measured, renewed and reinforced, as appropriate, during the renewal survey of safety construction carried out after the ship reaches 10 years of age. Full criteria are given in a new Annex 12 to Resolution A.744(18).

In adopting the guidelines for evaluating the longitudinal strength, IMO has taken note of the IACS Unified Requirements S7 and S11 and has decided that the actual transverse section modulus of the hull girder should be not less than 90% of that required for newbuildings in the IACS Unified Requirements which are already reflected in LR's Rules.

MARPOL 73/78 as amended:

Annex I – prevention of pollution by oil

(13) REG. 13G

Following a number of high profile tanker casualties, including the loss of the ERIKA, Reg 13G has been completely revised to require the phase-out of single oil hull tankers of 5,000 tons deadweight and above at earlier dates than had previously been the case.

The regulation applies to oil tankers of 5,000 tons deadweight and above which are contracted, the keels of which are laid or which are delivered before the dates specified in Reg 13F(1).

However, the regulation does not apply to such tankers which comply with the requirements of Reg 13F. In addition, it does not apply to such tankers which comply with 13F(3)(a) and (b) or 13F(4) or 13F(5) except that the requirement for minimum distances between the cargo tank boundaries and the ship side and bottom plating need not be met in all respects.

For the purposes of Reg 13G, oil tankers are divided into three categories:

- "Category 1 oil tanker" means an oil tanker of 20,000 tons deadweight and above carrying crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo, and of 30,000 tons deadweight and above carrying oil other than the above, which does not comply with the requirements for new oil tankers as defined in Reg 1(26) of Annex 1;
- "Category 2 oil tanker" means an oil tanker of 20,000 tons deadweight and above carrying crude oil, fuel oil, heavy diesel oil or lubricating oil as cargo, and of 30,000 tons deadweight and above carrying oil other than the above, which complies with the requirements for new oil tankers as defined in Reg 1(26) of Annex 1;
- "Category 3 oil tanker" means an oil tanker of 5,000 tons deadweight and above but less than that specified for a Category 1 or 2 oil tanker.

Oil tankers to which Reg 13G applies are to comply with the requirements of Reg 13F not later than the anniversary of the date of delivery of the ship in the year specified in the table below. In practice, this means that such ships are to be phased out on those dates

Category of oil tanker	Year of delivery	Year of phase-out or
		compliance with Reg 13F
1	1973 or earlier	2003
	1974 & 1975	2004
	1975 & 1977	2005*
	1978, 1979 & 1980	2006*
	1981 or later	2007*
2	1973 or earlier	2003
	1974 & 1975	2004
	1976 & 1977	2005
	1978 & 1979	2006
	1980 & 1981	2007
	1982	2008
	1983	2009
	1984	2010*
	1985	2011*
	1986	2012*
	1987	2013*
	1988	2014*
	1989 or later	2015*

3	1973 or earlier	2003
	1974 & 1975	2004
	1976 & 1977	2005
	1978 & 1979	2006
	1980 & 1981	2007
	1982	2008
	1983	2009
	1984	2010
	1985	2011
	1986	2012
	1987	2013
	1988	2014
	1989 or later	2015

^{*} Subject to compliance with the Condition Assessment Scheme outlined below

The regulation makes provision for flag states to allow the operation of certain Category 2 or 3 oil tankers with double bottoms or double sides beyond the dates given in the table subject to certain specific conditions. However, provision is also made for a port state to deny entry to such ships into its ports and terminals.

A Category 1 oil tanker will only be allowed to operate beyond the 25 th anniversary of its date of delivery provided that it either complies with the protective location requirements of Reg 13E(4) or it operates with hydrostatically balanced loading.

Category 1 oil tankers may be allowed to operate beyond the anniversary of the date of delivery in 2005 and Category 2 oil tankers may be allowed to operate beyond the anniversary of the date of delivery in 2010 provided that they comply with the requirements of the Condition Assessment Scheme adopted at MEPC 46.

Condition Assessment Scheme

The Condition Assessment Scheme (CAS) is intended to complement the requirements of the Enhanced Survey Programme (Resolution A.744(18)). The CAS is to verify that the structural condition of single hull oil tankers at the time of survey is acceptable and, provided subsequent periodical surveys are satisfactorily completed and effective maintenance is carried out by the ship's operator, will continue to be acceptable for a continued period of operation.

The requirements of the CAS include enhanced and transparent verification of the reported structural condition and of the ship and verification that the documentary and survey procedures have been properly carried out and completed.

The Scheme requires that compliance with the CAS is assessed during the Enhanced Survey Programme of Inspections concurrent with intermediate or renewal surveys currently required by resolution A.744(18).

The CAS does not specify structural standards in excess of the provisions of other International Maritime Organization conventions, codes and recommendations.

It is the intention to update the CAS as and when the need arises following amendments to resolution A.744(18).

CAS surveys will be carried out either by the flag administration or by a classification society acting on its behalf. Surveys will cover the hull structure in way of cargo tanks, pump rooms, cofferdams, pipe tunnels, void spaces in the cargo tank area and all ballast tanks.

The first CAS survey is to be carried out concurrently with the scheduled intermediate or renewal survey due prior to the anniversary of the date of delivery of the ship in 2005 for Category 1 tankers and prior to the anniversary of the date of delivery of the ship in 2010 for Category 2 tankers. This means that some ships needed to undergo CAS surveys prior to 1 September 2002, dependent on the due dates of their intermediate and renewal surveys.

An important feature of the CAS is the aspect of survey planning, which requires the company to complete a survey planning questionnaire at least five months prior to the CAS survey taking place. In addition, a full survey plan has to be submitted by the company at least two months prior to the start of the survey.

On completion of the CAS survey, a survey report will be prepared and submitted to the flag administration for review and approval.

Following approval of the survey report, the flag administration will issue a Statement of Compliance, which will be valid until the due date of the next intermediate or renewal survey or the phase-out date of the ship, whichever comes earlier.

1 JANUARY 2003 Section 2

SOLAS 1974 AS AMENDED

Chapter VII - Carriage of dangerous goods

Part D – Special requirements for the carriage of packaged irradiated nuclear fuel, plutonium and high-level radioactive wastes onboard ships (MSC.117(74))

(14) REG.14 - DEFINITIONS

In paragraph 2 of the regulation, the words "schedule 10, 11, 12 or 13" are replaced by the words "transport schedule 10, 11, 12, 13 or 14".

The amendment aims to align Chapter VII requirements with IMDG Code amendment 30 disseminated by means of MSC/Cird.961.

The International Code for the safe carriage of packaged irradiated nuclear fuel, plutonium and high-level radioactive wastes onboard ships (INF Code), Chapter 1 – general (MSC.118(74))

(15) PARAGRAPH 1.1. - DEFINITIONS

In paragraph 1.1.1.3, the words "schedule 10, 11, 12 or 13" are replaced by the words "transport schedule 10, 11, 12, 13 or 14".

The amendment aims to align the INF Code with IMDG Code amendment 30 disseminated by means of MSC/Cird.961.

The International Code of Safety for High-speed Craft (1994 HSC Code) (MSC.119(74))

Chapter 1 - General comment and requirements

(16) The existing text of 1.3.3.1 is replaced by the following: "warships, naval auxiliaries or other craft owned or operated by a Contracting Government and used only on government non-commercial service;"

The following new sentence is added after the existing 1.3.3.5: "However, warships, naval auxiliaries or other craft owned or operated by a Contracting Government and used only on government non-commercial service are encouraged to act in a manner consistent, so as far as reasonable and practicable, with this Code."

Chapter 13 - Navigational equipment

The amendment of this Chapter brings the provisions for navigational equipment of the 1994 HSC Code in line with the relevant provisions of the 2000 HSC Code, namely:

Introduction of "13.13. Voyage data recorders (VDR):

13.13.1 To assist in casualty investigation, passenger craft should be fitted with a voyage data recorder (VDR) as follows:

- (17) 1. ro-ro passenger craft, not later than the first survey after 1 January 2003; and
 - 2. passenger craft other than ro-ro passenger craft, not later than 1 January 2004.

13.13.2 The Administration may exempt passenger craft, other than ro-ro passenger craft, from being fitted with a VDR where it can be demonstrated that interfacing a VDR with the existing equipment on the craft is unreasonable and impracticable.

Introduction of "13.15 Automatic identification system (AIS)":

13.15.1 Craft should be provided with automatic identification system (AIS) as follows:

- 1. in the case of passenger craft, not later than 1 July 2003;
- 2. in the case of cargo craft of 3,000 gross tonnage and upwards, not later than 1 July 2006; and
- 3. in the case of cargo craft of less than 3,000 gross tonnage, not later than 1 July 2007.

The Administration should determine to what extent the provisions of this chapter (Chapter 13) do not apply to craft below 150 gross tonnage."

Annex 1 – Record of equipment for compliance with the international code of safety for high-speed craft

(18) The new section 5 is added after existing section 4.3: "5 Details of navigational systems and equipment".

MARPOL 73/78 as amended:

Annex I - prevention of pollution by oil

(19) REG. 13G - MEASURES FOR EXISTING TANKERS

Tankers of 20,000 tonnes deadweight and above carrying fuel oil, heavy diesel oil or lubricating oil are required to comply with Regulation 13G, in effect being treated as crude carriers. (MEPC 78(43))

Annex II – Control of pollution by noxious liquid substances

(20) REG. 16 – SHIPBOARD MARINE POLLUTION EMERGENCY PLANS FOR NOXIOUS LIQUID SUBSTANCES

All ships are required to be provided with an approved "Shipboard Marine Pollution Emergency Plan for Noxious Liquid Substances."

Alternatively, ships may combine the "Shipboard Oil Pollution Emergency Plan" required by Regulation 26 of Annex I with the "Shipboard Marine Pollution Emergency Plan for Noxious Liquid Substances" in which case the combined plan will be called a "Shipboard Marine Pollution Emergency Plan."

IMO have produced guidelines for the preparation of Shipboard Marine Pollution Emergency Plans for Noxious Liquid Substances in Resolution MEPC 85(44) together with amended guidelines for the preparation of Shipboard Oil Pollution Emergency Plans in Resolution MEPC 86(44).

1 JULY 2003 Section 3

SOLAS 1974 as amended:

Chapter II-2 - construction - fire protection, fire detection and fire extinction

REG. 15-2.9 TO 2.12 – ARRANGEMENTS FOR OIL FUEL, LUBRICATING OIL AND OTHER FLAMMABLE OILS

On or after 1 July 1998, fuel delivery lines and adjacent hot surfaces are to be jacketed and protected to contain leakages and prevent oil spraying onto hot surfaces or other sources of ignition.

(21) Existing ships built before 1 July 1998 are to comply with the regulations *not later than 1 July 2003*, with some alternative arrangements for engines of 375 kW and below.

Chapter V - Safety of navigation

- (22) REG. 19
 - Passenger ships engaged on international voyages constructed before 1 July 2002 are to be fitted with an automatic identification system (AIS) *not later than 1 July 2003*.
- (23) Tankers engaged on international voyages constructed before 1 July 2002 are to be fitted with an AIS not later than *the first survey for safety equipment on or after 1 July 2003*.

The international code of safety for high-speed craft (1994 HSC Code) (MSC.119(74))

Chapter 13 - Navigational equipment

(24) The amendment of this Chapter brings the provisions for navigational equipment of the 1994 HSC Code in line with the relevant provisions of the 2000 HSC Code. Passenger craft should be provided with automatic identification system (AIS) *not later than 1 July 2003*.

1 January 2004 Section 4

SOLAS 1974 AS AMENDED

Chapter IV - Radiocommunications (MSC.123(75))

(25) The amendments adjust chapter IV to account for the fact that some regulations thereof were no longer applicable as of 1 February 1999. In particular the following regulations:

Regulation 1 – Application, Regulation 3 – Exemptions, Regulation 4 - Functional requirements, Regulation 7 - Radio equipment: General, Regulation 12 – Watches, Regulation 14 - Performance standards.

Chapter V – Safety of navigation

(26) REG. 20

Passenger ships other than ro-ro passenger ships constructed before 1 July 2002 are to be fitted with a voyage data recorder (VDR) *not later than 1 January 2004.*

(27) REG. 21 - INTERNATIONAL CODE OF SIGNALS (MSC.123(75))

By resolution A.894(21), the Assembly had recommended Governments to ensure that all ships entitled to fly the flag of their countries carry on board a copy of Volume III of the IAMSAR Manual.

The title of the regulation was replaced to reflect new paragraph 2, which was added to make the carriage of a copy of Volume III of IAMSAR Manual mandatory.

New paragraph 2 reads:

"2 All ships shall carry an up-to-date copy of Volume III of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual."

Chapter VI – Carriage of Cargoes (MSC.123(75))

(28) Amendments to SOLAS chapters VI and VII make certain parts of the IMDG Code mandatory. Amendments to chapter VI relate to: regulation 2 - Cargo information, regulation 5 - Stowage and securing, regulation 6 - Acceptability for shipment.

Chapter VII – Carriage of dangerous goods (MSC.123(75))

(29) Amendments to SOLAS chapters VI and VII make certain parts of the IMDG Code mandatory. Existing part A is replaced by new part A and part A-1, where IMDG Code is directly referenced in the authentic text of the SOLAS Convention. Part D is amended to the same effect.

Appendix - Certificates (MSC.123(75))

(30) "Record of Equipment for the Passenger Ship Safety Certificate (Form P)" was amended: in section 3, items 7 and 8 and related footnotes were deleted.

(31) "Record of Equipment for the Cargo Ship Safety Radio Certificate (Form R)" was amended: in section 2, items 7 and 8 and related footnotes were deleted; section 4 was deleted.

The Protocol of 1988 relating to SOLAS 74

Appendix modifications and additions to the appendix to the annex to SOLAS 74

- **(32)** "Record of Equipment for the Passenger Ship Safety Certificate (Form P)" was amended: in section 3, items 7 and 8 and related footnotes were deleted.
- (33) "Record of Equipment for the Cargo Ship Safety Radio Certificate (Form R)" was amended: in section 2, items 7 and 8 and related footnotes were deleted; section 4 was deleted.
- **(34)** "Record of Equipment for the Cargo Ship Safety Certificate (Form C)" was amended: in section 3, items 7 and 8 and related footnotes were deleted.

Guidelines on the enhanced programme of inspections during surveys of bulk carriers and oil tankers (Resolution A.744(18), as amended) –

Annex A - Guidelines on the enhanced programme of inspections during surveys of bulk carriers (MSC.125(75))

(35) These amendments to the Guidelines on the enhanced programme of inspections during surveys of bulk carriers and oil tankers (resolution A.744(18)) align the provisions of the Guidelines with IACS Unified Requirements Z10.1 and Z10.2, which were adopted as a post-ERIKA measure and relate, *inter alia*, to the increase of scope for intermediate surveys of ships 15 years of age and older to the scope of previous special survey, surveyor witnessing of thickness measurements.

The International Maritime Dangerous Goods (IMDG) Code (MSC.122(75))

(36) The code is made mandatory under chapter VII of SOLAS.

Amendments to the new IMDG Code would enter into force on 1 January of every even year, that is, one year later than amendments adopted to other instruments governing the transport of dangerous goods by other modes, which enter into force on 1 January every odd year. In order to address this delay and facilitate the multimodal transport of dangerous goods, MSC 75 agreed that at the time of adoption of the amendments and in order for SOLAS Contracting Governments to have an option to apply the amendments earlier, the Committee would include, in the MSC resolution on adoption of the amendments, an operative paragraph inviting such Governments to apply the adopted amendments on a voluntary basis pending their official entry into force.

From the legal point of view, the whole of the IMDG Code is mandatory and provisions of recommendatory nature are so editorially expressed in the Code (e.g. using the word "should" instead of "shall") as to clarify their status. Therefore the following provisions of the Code **are to remain recommendatory** in the mandatory Code:

- 1. chapter 1.3 (Training);
- 2. chapter 2.1 (Explosives Œ Notes 1 to 4);
- 3. 2.3.3 of chapter 2.3 (Determination of flashpoint);
- 4. chapter 3.2 (Columns 15 and 17 of the Dangerous Goods List);
- 5. chapter 3.5 (Transport Schedules);
- 6. 5.4.5 of chapter 5.4 (Multimodal Dangerous Goods form); and
- 7. chapter 7.3 (Special provision in the event of an incident and fire precautions involving dangerous goods).

MSC 75 approved the procedure for the adoption of future amendments to the IMDG Code, including the proposed general authorization for circulation of the proposed amendments, which provides for the following:

- 1. Amendments to the mandatory IMDG Code should be adopted at two-year intervals so that they may enter into force on the 1st January of even years, e.g. 1 January 2006, 1 January 2008 and so on.
- 2. The DSC Sub-Committee, at a session which takes place in an odd year, prepares and agrees to proposed amendments developed on the basis of the amendments approved by the UN Committee of Experts on the Transport of Dangerous Goods and those proposed by Member Governments;
- 3. The proposed amendments to the IMDG Code, so agreed by the DSC Sub-Committee, are circulated by the Secretary-General to all IMO Members and Contracting Governments to SOLAS in accordance with SOLAS article VIII(b)(i) for consideration and adoption by the expanded MSC at its first session thereafter.
- 4. Proposed amendments will enter into force 18 months later, i.e. on the 1st January of even years.

The International Code of Safety for High-speed Craft (1994 HSC Code) (MSC.119(74))

Chapter 13 – Navigational equipment

(37) The amendment of this Chapter brings the provisions for navigational equipment of the 1994 HSC Code in line with the relevant provisions of the 2000 HSC Code. To assist in casualty investigation, passenger craft other than ro-ro passenger craft, should be fitted with a voyage data recorder (VDR) *not later than 1 January 2004*.

1 March 2004 Section 5

MARPOL 73/78 AS AMENDED

Annex I – Prevention of pollution by oil

(38) CAS (MEPC.99(48))

The CAS is amended in order to include, as mandatory, the Model Survey Plan and Mandatory Requirements for the Safe Conduct of CAS.

The above amendments, as of 1 March 2004, supersede the provisions of MEPC/Circ.390, which contain the Model Survey Plan and guidance note for the safe conduct of surveys relating to CAS, and was developed to serve until the entry into force of the above amendments.

1 July 2004 Section 6

SOLAS 1974 AS AMENDED

Chapter V - Safety of navigation

(39) REG. 19

Ships engaged on international voyages, other than passenger ships and tankers, constructed before 1 July 2002 and of 50,000 gross tonnage and upwards are to be fitted with an automatic identification system (AIS) *not later than 1 July 2004*.

Chapter XII – Additional safety measures for bulk carriers

(39a)REG.12 and 13

Regulation XII/12 requires water ingress alarms and detectors to be installed in each cargo hold, any ballast space froward of the collision bulkhead and any dry or void space other than a chain cable locker, any part of which extends forward of the foremost cargo hold for bulk carriers constructed on or after 1 July 2004. Bulk carriers constructed before 1 July 2004 shall comply not later than the date of the annual, intermediate or renewal survey of the ship to be carried out after 1 July 2004, whichever comes first.

Regulation XII/13 requires availability of draining and pumping from spaces described in regulation XII/12 for bulk carriers constructed on or after 1 July 2004. Bulk carriers constructed before 1 July 2004 shall comply not later than the date of the first intermediate or renewal survey of the ship to be carried out after 1 July 2004, but in no case later than 1 July 2007.

Chapter II-1 – Construction – Structure, subdivision and stability, machinery and electrical installations

(39b)REG.31

The adopted amendment to regulation II-1/31 is the addition of new sub-paragraph .10 to paragraph 2 of the regulation, which requires, *inter alia*, automation systems to be designed in a manner which ensures that threshold warning of impending or imminent slowdown or shutdown of the propulsion system is given to the officer in charge of the navigation watch in time to assess navigational circumstances in an emergency. This amendment is to enter into force *on 1 July 2004*.

Chapter II-2 – Construction – Fire protection, fire detection and fire extinction

(39c)With IMDG Code mandatory under chapter VII, chapter II-2 was revised, in particular, regulation 3 (Definitions), regulation 19 (Carriage of dangerous goods). Entry into force of amendment is *1 July 2004*.

Chapter III – Life-saving appliances and arrangements (39d)REG.26

Amendment to regulation III/26 requires the fitting of liferafts on ro-ro passenger ships with radar transponder in the ration of one for every four liferafts. The amendment applies to new ships built *on or after 1 July 2004*. Ships built before 1 July 2004 shall comply with the *requirement not later than the first survey on or after 1 July 2004*.

Chapter V – Safety of navigation

(39e)REG.19

Amendment to chapter V pertains to the early fitting of AIS on certain ships and stem from security matters. Ships, other than passenger ships and tankers, engaged on international voyages, constructed before 1 July 2002, of 300 gross tonnage and upwards but less than 50000 gross tonnage shall be fitted with AIS *not later than the first safety equipment survey after 1 July 2004 or by 31 December 2004, whichever occurs earlier.*

Chapter XI-1 – Special measures to enhance maritime safety

Amendment to Chapter XI constituted introduction of two chapters: Chapter XI-1 as above and Chapter XI-2 as below.

(39f) Chapter XI-1 is the old Chapter XI amended to contain requirements for ship identification number and continuous synopsis record. For ships constructed before 1 July 2004, the requirements shall be complied with *not later than the first scheduled dry-docking of the ship after 1 July 2004*.

Chapter XI-2 – Special measures to enhance maritime security

(39g) The new Chapter XI-2 addresses the security issues on ships and port facilities. The detailed requirements are laid down in ISPS Code which is made mandatory under this Chapter. These amendments apply *from 1 July 2004* to the following types of ships engaged in international voyages: passenger ships, including high speed passenger craft, cargo ships, including high-speed craft, of 500 gross tonnage and upwards and mobile offshore drilling units; and to port facilities serving such ships engaged on international voyages.

1 October 2004 Section 7

SOLAS 1974 AS AMENDED

Chapter II-1 – Construction – Structure, subdivision and stability, machinery and electrical installations

(40) REG. 8, 8-1 AND 8-2

Ro-ro passenger ships constructed before 1 July 1997 having survivability characteristics A/Amax 95% or more but less than 97.5% are to comply with applicable requirements *not later than the first periodical survey after* 1 *October* 2004.

1 January 2005 Section 8

SOLAS 1974 AS AMENDED

Chapter II-1 – Construction – Structure, subdivision and stability, machinery and electrical installations

(40a)REG. 3-6

New regulation II-1/3-6 on the access to and within spaces in the cargo area of oil tankers and bulk carriers will apply to bulk carriers of 20000 gross tonnage and over and oil tankers of 500 gross tonnage and over, constructed *on or after 1 January 2005*. Oil tankers of 500 gross tonnage and over constructed *on or after 1 October 1994 but before 1 January 2005* shall comply with the provisions of regulation II-1/12-2 adopted by resolution MSC.27(61). The regulation refers to Technical Provisions for permanent means of access for oil tankers and bulk carriers, which were made mandatory under this regulation.

Regulation II-1/3-6 requires provision of permanent means of access for each space with in a cargo area to enable, throughout the life of the ship, overall and close-up inspections and thickness measurements of the ship's structure to be carried out by the Administration, the Company and the ship's personnel and others as necessary. Safe access to cargo holds, cargo tanks, ballast tanks and other spaces should be provided. The ship's means of access to carry out overall and close-up inspections and thickness measurements shall be described in a Ship structure access manual approved by the Administration, the updated copy of which shall be kept on board. Technical Provisions provide details of dimensions and arrangements of permanent means of access for tankers (Table 1) and bulk carriers (Table 2).

1 October 2005

Section 9

SOLAS 1974 AS AMENDED

Chapter II-1 – Construction – Structure, subdivision and stability, machinery and electrical installations

(42) REG. 8, 8-1 AND 8-2

Ro-ro passenger ships constructed before 1 July 1997 (except those carrying more than 400 passengers) having survivability characteristics A/Amax 97.5% or more are to comply with applicable requirements *not later than the first periodical survey after* 1 October 2005.

Chapter II-2 – Construction – Fire protection, fire detection and fire extinction Applicable on *1 October* 2005 or 15 years from the date of construction, whichever is later to passenger ships carrying more than 36 passengers.

(43) *REG. 41-2.5

Automatic sprinkler, fire detection and fire alarm system: accommodation and service spaces, stairway enclosures and corridors are to be fitted with an automatic sprinkler, fire detection and fire alarm system.

*Note that this regulation refers to the version of Chapter II-2 extant prior to the adoption of the revised Chapter in December 2000.

Chapter II-2 – Construction – Fire protection, fire detection and fire extinction (MSC.99(73))

The new Chapter II-2 requires that existing ships are to comply with the old version of the Chapter as amended by MSC resolutions up to and including MSC 57(67). In addition, a number of additional requirements are introduced for existing ships; the applicable ones are as follows:

(For the full list of regulations of new Chapter II-2 applicable to existing ships please refer to Part 3, Section 3)

(44) REG. 10

Fire fighting - Existing passenger ships of 2,000 gross tonnage and above are to comply with paragraph 5.6 below *not later than* 1 *October* 2005.

5.6 Machinery spaces of category A above 500 m 3 in volume shall, in addition to the fixed fire-extinguishing system required in paragraph 5.1.1, be protected by an approved type of fixed water-based or equivalent local application fire-fighting system, based on the guidelines contained in MSC/Circ. 913). In the case of periodically unattended machinery spaces, the fire fighting system shall have both automatic and manual release capabilities. In the case of continuously manned machinery spaces, the fire-fighting system is only required to have a manual release capability. Fixed local application fire-fighting systems are to protect areas such as the following without the necessity of engine shutdown, personnel evacuation, or sealing of the spaces:

- .1 the fire hazard portions of internal combustion machinery used for the ship's main propulsion and power generation
- .2 boiler fronts
- .3 the fire hazard portions of incinerators and
- .4 purifiers for heated fuel oil.

Activation of any local application system shall give a visual and distinct audible alarm in the protected space and at continuously manned stations. The alarm shall indicate the specific system activated. The system alarm requirements described within this paragraph are in addition to, and not a substitute for, the detection and fire alarm system required elsewhere in this chapter.

1 July 2006 Section 10

THE INTERNATIONAL CODE OF SAFETY FOR HIGH-SPEED CRAFT (1994 HSC CODE) (MSC.119(74))

Chapter 13 - Navigational equipment

(46) The amendment of this Chapter brings the provisions for navigational equipment of the 1994 HSC Code in line with the relevant provisions of the 2000 HSC Code. Cargo craft of 3,000 gross tonnage and upwards should be provided with automatic identification system (AIS) *not later than 1 July 2006*.

1 July 2007 Section 11

THE INTERNATIONAL CODE OF SAFETY FOR HIGH-SPEED CRAFT (1994 HSC CODE) (MSC.119(74))

Chapter 13 - Navigational equipment

(48) The amendment of this Chapter brings the provisions for navigational equipment of the 1994 HSC Code in line with the relevant provisions of the 2000 HSC Code. Cargo craft of less than 3,000 gross tonnage should be provided with automatic identification system (AIS) *not later than 1 July 2007*.

1 July 2008 Section 12

SOLAS 1974 AS AMENDED

Chapter V - Safety of navigation

(49) REG. 19

Ships not engaged on international voyages, constructed before 1 July 2002 are to be fitted with an automatic identification system (AIS) *not later than 1 July 2008*.

1 July 2010 Section 13

SOLAS 1974 AS AMENDED

Chapter II-1 – Construction – Structure, subdivision and stability, machinery and electrical installations

(50) REG. 8, 8-1 AND 8-2 – PASSENGER SHIP DAMAGE STABILITY
Ro-ro passenger ships constructed before 1 July 1997 carrying more than 400 passengers having survivability characteristics A/Amax 97.5% or more are to comply with applicable requirements *not later than the first periodical survey after 1 October 2010*.

Chapter II-2 – Construction, fire protection, fire detection and fire extinction Applicable to pre-1974 SOLAS passenger ships carrying more than 36 passengers.

(51) *REG. 41-1.2.4 - RESTRICTED USE OF COMBUSTIBLE MATERIALS Requirements of SOLAS 1974 as amended Reg. 34 to be complied with.

*Note that this regulation refers to the version of Chapter II-2 extant prior to the adoption of the revised Chapter in December 2000.

Part 3.

REGULATIONS THAT ENTERED INTO FORCE BEFORE 1 JANUARY 2003, BUT APPLICATION DATE THEREOF REMAINS VALID BEYOND 1 JANUARY 2003

Section 1

SOLAS 1974 AS AMENDED

Chapter II-1 – Construction – Structure, subdivision and stability, machinery and electrical installations

REG 8-1 – STABILITY OF PASSENGER SHIPS IN THE DAMAGED CONDITION The regulation requires all existing passenger ro-ro ships built before 1 July 1997 to comply with the requirements of REG. 8 as amended by MSC Resolution 12(56) according to the value of A/Amax as follows:

- less than 85%, the first periodical survey after 1 October 1998
- 85 but less than 90%, the first periodical survey after 1 October 2000
- 90 but less than 95%, the first periodical survey after 1 October 2002
- 95 but less than 97.5%, the first periodical survey after 1 October 2004
- 97.5% or more, the first periodical survey after 1 October 2005

REG. 8-2 – SPECIAL REQUIREMENTS FOR RO-RO PASSENGER SHIPS CARRYING MORE THAN 400 PASSENGERS Notwithstanding the provisions of REG. 8 and 8-1:

Ships built on or after 1 July 1997 must comply with the provisions of paragraph 2.3 of REG. 8, assuming a damage anywhere within the ship's length.

Ships built before 1 July 1997 are to comply with the requirement of paragraph 1 not later than the first periodical survey after the latest date of one of the following three options; whichever is the latest:

Value of A/Amax

- less than 85%, the first periodical survey after 1 October 1998
- 85 but less than 90%, the first periodical survey after 1 October 2000
- 90 but less than 95%, the first periodical survey after 1 October 2002
- 95 but less than 97.5%, the first periodical survey after 1 October 2004
- 97.5% or more, the first periodical survey after 1 October 2010

or

Number of persons permitted to be carried:

- 1500 or more, the first periodical survey after 1 October 2002
- 1000 but less than 1500, the first periodical survey after 1 October 2006
- 600 but less than 1000, the first periodical survey after 1 October 2008
- 400 but less than 600, the first periodical survey after 1 October 2010

or

The age of the ship is equal to or greater than 20 years.

Section 2

Chapter XII - Additional safety measures for bulk carriers

The SOLAS Conference in November 1997 adopted a new Chapter XII incorporating measures aimed at improving the safety of both new and existing single side skinned bulk carriers of 150m and upwards.

Existing bulk carriers built before (see REG. II-1/1) 1 July 1999 are to comply with the requirements in accordance with REG. 3 –implementation schedule.

REG. 3 - IMPLEMENTATION SCHEDULE

Existing bulk carriers are to implement regulations 4 and 6 in accordance with the following schedule:

- bulk carriers of 20 years of age and over on 1 July 1999 are to comply by the date
 of the first intermediate or special survey after 1 July 1999, whichever comes first.
- bulk carriers of 15 years of age and over, but less than 20 years of age on 1 July 1999 are to comply by the date of the first special survey after 1 July 1999 but not later than 1 July 2002.
- bulk carriers of less than 15 years of age on 1 July 1999 are to comply by the date of the first special survey after the date on which the ship reaches 15 years of age, but not later than the date on which it reaches 17 years of age.

Section 3

Chapter II-2 – Construction – Fire protection, fire detection and fire extinction (MSC.99(73))

Chapter II-2 has been completely rewritten and replaced the existing Chapter II-2 in its entirety for ships constructed on or after 1 July 2002.

The revised Chapter II-2 requires that existing ships are to comply with the old version of the Chapter as amended by MSC resolutions up to and including MSC 57(67). In addition, a number of additional requirements are introduced for existing ships as follows:

REG. 1 - APPLICATION

3.1 All ships which undergo repairs, alterations, modifications and outfitting related thereto shall continue to comply with at least the requirements previously applicable to these ships. Existing ships shall, as a rule, comply with the requirements for new ships to at least the same extent as they did before undergoing such repairs, alterations, modifications or outfitting.

3.2 In addition, repairs, alterations and modifications which substantially alter the dimensions of a ship or the passenger accommodation spaces, or substantially increase a ship's service life and outfitting related thereto shall meet the requirements for new ships in so far as the Administration deems reasonable and practicable.

6.5 Existing combination carriers shall not carry cargoes other than oil unless all cargo spaces are empty of oil and gas-freed or unless the arrangements provided in each case have been approved by the Administration taking into account the guidelines for inert gas systems contained in MSC/Circ. 355 as amended by MSC/Circ.387.

6.7 The arrangements required by regulations 4.5.10.1.1 (regarding temperature sensing devices on pump room bulkhead shaft glands, bearings and pump casings) and 4.5.10.1.4 (regarding bilge level monitoring devices in pump rooms), and a system for continuous monitoring of the concentration of hydrocarbon gases shall be fitted on all existing tankers by the date of the first scheduled dry-docking after 1 July 2002, but not later than 1 July 2005. Sampling points or detector heads shall be located in suitable positions in order that potentially dangerous leakages are readily detected. When the hydrocarbon gas concentration reaches a pre-set level which shall not be higher than 10% of the lower flammable limit, a continuous audible and visual alarm signal shall be automatically effected in the pump-room and cargo control room to alert personnel to the potential hazard. However, existing monitoring systems already fitted having a pre-set level not greater than 30% of the lower flammable limit may be accepted.

REG. 10 - FIRE FIGHTING

For new installations on existing ships, the requirements of the following paragraphs are to be complied with.

4.1.3 Fire-extinguishing systems using Halon 1211, 1301, and 2402 and perfluorocarbons shall be prohibited.

6.4 Deep-fat cooking equipment shall be fitted with an automatic or manual extinguishing system tested to an international standard acceptable to the Organization, a primary and backup thermostat with an alarm to alert the operator in the event of failure of either thermostat, arrangements for automatically shutting off the electrical power upon activation of the extinguishing system, an alarm for indicating operation of the extinguishing system in the galley where the equipment is installed and controls for manual operation of the extinguishing system which are clearly labelled for ready use by the crew.

Existing passenger ships of 2,000 gross tonnage and above are to comply with paragraph 5.6 below not later than 1 October 2005.

5.6 Machinery spaces of category A above 500 m 3 in volume shall, in addition to the fixed fire-extinguishing system required in paragraph 5.1.1, be protected by an approved type of fixed water-based or equivalent local application fire-fighting system, based on the guidelines contained in MSC/Circ. 913). In the case of periodically unattended machinery spaces, the fire fighting system shall have both automatic and manual release capabilities. In the case of continuously manned machinery spaces, the fire-fighting system is only required to have a manual release capability. Fixed local application fire-fighting systems are to protect areas such as the following without the necessity of engine shutdown, personnel evacuation, or sealing of the spaces:

- .1 the fire hazard portions of internal combustion machinery used for the ship's main propulsion and power generation;
- .2 boiler fronts;
- .3 the fire hazard portions of incinerators; and
- .4 purifiers for heated fuel oil.

Activation of any local application system shall give a visual and distinct audible alarm in the protected space and at continuously manned stations. The alarm shall indicate the specific system activated. The system alarm requirements described within this paragraph are in addition to, and not a substitute for, the detection and fire alarm system required elsewhere in this chapter.

REG. 13 - MEANS OF ESCAPE

Existing ships are to comply with the requirements of paragraphs 3.4.2 to 3.4.5 and 4.3 by the date of the first survey after 1 July 2002.

- 3.4.2 All ships shall carry at least two emergency escape breathing devices within accommodation spaces.
- 3.4.3 In passenger ships, at least two emergency escape breathing devices shall be carried in each main vertical zone.
- 3.4.4 In passenger ships carrying more than 36 passengers, two emergency escape breathing devices, in addition to those required in paragraph 3.4.3 above, shall be carried in each main vertical zone.
- 3.4.5 However, paragraphs 3.4.3 and 3.4.4 do not apply to stairway enclosures which constitute individual main vertical zones and for the main vertical zones in the fore or aft end of a ship which do not contain spaces of categories (6), (7), (8) or (12) defined in regulation 9.2.2.3.
- 4.3 Emergency escape breathing devices
- 4.3.1 On all ships, within the machinery spaces, emergency escape breathing devices shall be situated ready for use at easily visible places, which can be reached quickly and easily at any time in the event of fire. The location of emergency escape breathing devices shall take into account the layout of the machinery space and the number of persons normally working in the spaces, taking into account the Guidelines for the performance, location, use and care of emergency escape breathing devices contained in MSC/ Circ.849.
- 4.3.2 The number and location of these devices shall be indicated in the fire control plan.
- 4.3.3 Emergency escape breathing devices shall comply with the *Fire Safety Systems Code*.

PART E - OPERATIONAL REQUIREMENTS

Existing ships are required to comply with the whole of Part E (Regulations 14 to 16), with the exception of Regulations 16.3.2.2 and 16.3.2.3 not later than the date of the first survey after 1 July 2002.

REG.14 - OPERATIONAL READINESS AND MAINTENANCE

The purpose of this Regulation is to maintain and monitor the effectiveness of the fire safety measures with which the ship is provided. It requires all arrangements to be maintained ready for use and to be properly tested and inspected. Maintenance, testing and inspections are to be carried out in accordance with the guidelines contained in MSC/Circ. 850. In addition, a maintenance plan is required to be kept on board and made available for inspection when required by the Administration.

REG. 15 - INSTRUCTIONS, ONBOARD TRAINING AND DRILLS

The purpose of this regulation is to mitigate the consequences of fire by means of proper instructions for training and drills of persons on board in correct procedures under emergency conditions. It provides for instructions, onboard training and drills, the provision of training manuals, fire control plans, etc. Additional requirements for passenger ships are also stipulated.

REG. 16 - OPERATIONS

The purpose of Regulation 16 is to provide information and instructions for proper ship and cargo handling operations in relation to fire safety. It provides for the provision of fire safety operational booklets on board and for the control of flammable vapour releases from cargo tank venting on tankers.

Section 4

Chapter V – Safety of Navigation (MSC.99(73))

Chapter V has been completely revised. Some of the amendments are applicable to existing ships and these are highlighted below.

The changes relating to existing ships are similar to those for new ships, as follow:

- the use of electronic charts
- the use of a common language on the bridge.
- records of navigational activities being properly maintained
- requirements for bridge design and approval requirements of navigational equipment

REG 19

Reg 19 is also applicable to existing ships.

- 2.4 All ships of 300 gross tonnage and upwards engaged on international voyages and cargo ships of 500 gross tonnage and upwards not engaged on international voyages and passenger ships irrespective of size shall be fitted with an automatic identification system (AIS), as follows:
- 2. ships engaged on international voyages constructed before 1 July 2002:
 - 2.1. in the case of passenger ships, not later than 1 July 2003;
 - 2.2. in the case of tankers, not later than the first survey for safety equipment on or after 1 July 2003;

- 2.3. in the case of ships, other than passenger ships and tankers, of 50,000 gross tonnage and upwards, not later than 1 July 2004;
- 2.4. in the case of ships, other than passenger ships and tankers, of 10,000 gross tonnage and upwards but less than 50,000 gross tonnage, not later than 1 July 2005;
- 2.5. in the case of ships, other than passenger ships and tankers, of 3,000 gross tonnage and upwards but less than 10,000 gross tonnage, not later than 1 July 2006.
- 2.6. in the case of ships, other than passenger ships and tankers, of 300 gross tonnage and upwards but less than 3,000 gross tonnage, not later than 1 July 2007; and
- 3. ships not engaged on international voyages constructed before 1 July 2002, not later than 1 July 2008;
- 4. the Administration may exempt ships from the application of the requirements of this paragraph when such ships will be taken permanently out of service within two years after the implementation date specified in subparagraphs .2 and .3.

REG 19.1.2.2

The fitting of a receiver for a global navigation satellite system or terrestrial radionavigation system shall be not later than the first survey after 1 July 2002. Following the fitting of such equipment, the radio direction finder may be removed.

REG. 20

- 1. To assist in casualty investigations, ships, when engaged on international voyages, subject to the provisions of regulation 1.4, shall be fitted with a voyage data recorder (VDR) as follows:
 - 1. ro-ro passenger ships constructed before 1 July 2002 not later than the first survey on or after 1 July 2002;
 - 2. passenger ships other than ro-ro passenger ships constructed before 1 July 2002 not later than 1 January 2004; and
 - 3. ships, other than passenger ships, of 3,000 gross tonnage and upwards constructed on or after 1 July 2002.
- 2. Administrations may exempt ships, other than ro-ro passenger ships, constructed before 1 July 2002 from being fitted with a VDR where it can be demonstrated that interfacing a VDR with the existing equipment on the ship is unreasonable and impracticable.

Note: A decision on the fitting of VDRs on existing cargo ships was deferred pending the outcome of a feasibility study which is to be undertaken by IMO.

Part 4.

Authorisations from flag States to Lloyds Register

The abbreviations under the Conventions and ISM Code are:

SC	Cargo Ship Safety Construction Certificate under SOLAS
SE	Cargo Ship Safety Equipment Certificate under SOLAS
SR	Cargo Ship Safety Radio Certificate under SOLAS
PS	Passenger Ship Safety Certificate under SOLAS
DOC	Document of Compliance under the ISM Code
SMC	Safety Management Certificate under the ISM Code
MA-I	Annex I to MARPOL 73/78, Prevention of Pollution by Oil
MA-II	Annex II to MARPOL 73/78, Control of Pollution by Noxious Liquid
	Substances in bulk
MA-IV	Annex IV to MARPOL 73/78, Prevention of Pollution by Sewage from
	Ships
MA-VI	Annex VI to MARPOL 73/78, Prevention of Air Pollution from Ships
	and/or the NOx Technical Code;
LL66	International Convention on Load Lines; 1966
TC69	International Convention on Tonnage Measurement; 1969
AFS	International Convention on the Control of Harmful Anti-fouling Systems
	on Ships. 2001

Extent of delegating (See Note 2):

"F" - Full authorisation to perform plan review, carry out surveys/audits and issue necessary certificates relative to the above mentioned IMO Conventions;

"P" - Partial authorisation

- 1) to perform plan review and carry out surveys/audits where the Administration issues the necessary certificates; and/or
- 2) to perform plan review, carry out surveys/audits and issue necessary certificates for less than the full complement of certification for each of the Conventions,
- 3) the authorisation is limited for certain types of ships, and/or
- 4) the authorisation is subject to geographic limitations.

Notes:

- 1. In addition to the generally delegated statutory duties as indicated in the list the LR acts on behalf of several flag States on a case-by-case basis.
- 2. Where an "F" or "P" appears for AFS, or MARPOL Annexes IV and VI, since these statutory instruments have not yet entered into force, Statements/Certificates of Compliance are issued.

Lloyd's Register													
Conventions	SOLAS	6			ISM		MARPOL 73/78				LL66	TC69	AFS-
Flags	SC	SE	SR	PS	DOC	SMC	MA-	MA-II	MA- IV	MA- VI			
ALGERIA	F	F	F	F	Р	Р	F	F			F	F	
ANTIGUA AND	F	F	F	F	F	F	F	F			F	F	
BARBUDA													
ARGENTINA	F	F	F				F	F			F		
Aruba+(Netherlands)	Р	Р	Р	Р	Р	Р	Р	Р			F	F	
AUSTRALIA	F	F	F	F			F	F			F	F	
AUSTRIA	Р	Р	Р				Р	P			F	P	
BAHAMAS	F	F	F	F	F	F	F	F		F	F	F	F
BAHRAIN	F	F	F	F	F	F	F	F		F	F	F	
BANGLADESH	F				F	F	F	F			F	F	F
BARBADOS	F	F	F	F	F	F	F	F		F	F	F	
BELGIUM	F										F		
BELIZE	F	F	F	F	F	F	F	F			F	F	
Bermuda +(UK)	P	Р	P		Р	P	Р	P		F	F	F	
BRAZIL	F	F	F		F	F	F	F	F	F	F	F	
British Virgin Islands													
BRUNEI	F	F	F		F	F	F	F			F	F	
DARUSSALAM													
BULGARIA											P		
Burundi	F	F	F	F							F	F	
CAMBODIA	P	P	P	P	Р	P	P	P			P	P	
CAMEROON													
CANADA	F	F		P	F	F	F	F			F	F	
CAPE VERDE	F	F	F				F	F			F	F	
Cayman Islands +(UK)	P	P	P	P	Р	P	Р	P		F	F	F	F
Channel Islands + (UK)	P	P	P	P	P		P	P			F	F	
CHILE												P	
COLOMBIA	F	F	F		F	F	F	F			F	F	
COMOROS ISLANDS	F	F	F	F	F	F	F	F			F	F	
CONGO	F	F	F	F							F	F	
Cook Islands	F	F	F	F			F	F			F	F	
COTE D'IVOIRE	F	F											
CROATIA					P	P							
CUBA	F	F	F	F	P	P	F	F			F	P	
CYPRUS	F	F	F	F	F	F	F	F			F	F	
CZECH REPUBLIC	F	F	F	F	F	F	F	F			F	F	
DENMARK	F	F	F		F	F	F	F		F	F	F	F
Denmark (DIS)	F	F	F		F	F	F	F		F	F	F	F
DJIBOUTI	F	F	F	F			F	F			F	F	
DOMINICA	F	F	F	F	F	F	F	F			F	F	

Conventions	SOLAS				ISM			RPOL 7	3/78		LL66	TC69	AFS-
Flags	SC	SE	SR	PS	DOC	SMC	MA- I	MA-II	MA- IV	MA- VI			
EGYPT					Р	Р	F	F			F		
ESTONIA	F	F	F	F			F	F		Р	F	F	F
ETHIOPIA	F	F	F	F			F	F			F	F	
Faroe	F	F	F		F	F	F	F		F	F	F	
Islands+(Denmark)													
FIJI	F	F	F	F	Р	Р	F	F			F	F	
FINLAND	Р	Р		P	F	F	Р	Р			Р		
FRANCE	Р	Р		P	Р	P				F	F		
GEORGIA	F	F	F	F	F	F	F	F			F	F	F
GERMANY	Р	Р	Р	Р	Р	Р	Р	Р	Р		Р		
GHANA	F	F	F				Р				F	F	
Gibraltar +(UK)	F	P	P				Р	Р			F	F	
GREECE	F	F	F	Р	Р	P	Р	F		İ	P	F	
Green Land	F	F	F		F	F	F	F		F	F	F	
Guernsey +(UK)											F		
HAITI	F	F	F	F							F	F	
Holy See													
HONDURAS	F	F	F	F	F	F	F	F			F	F	
HONG KONG,	F	F	F		Р	P	F	F			F	F	F
(CHINA)*													
HUNGARY	P	P	P				P						
ICELAND	F	F	F	P	Р	P	F	F			F	Р	
INDIA	P	Р	Р				P	P					
INDONESIA	P	Р	P				Р				F		
IRAN (ISLAMIC REPUBLIC OF)	F	F	F	F	F	F	F	F			F	F	F
IRAQ	F	F	F				Р				F	F	
IRELAND	F				F	F	F	F			F	Р	
Isle of Man +(UK)	F	Р	Р		F	F	P	Р			F	F	P
ISRAEL	Р	Р	Р				P				F	F	
JAMAICA	F	F	F	F	F	F	F	F			F	F	
Jersey +(UK)	Р										F	F	
JORDAN	F	F	F		F	F	P				F	F	
KENYA	F	F	F	F			P				F	F	
KUWAIT	F	Р	Р	P	Р	P	F	F			F	F	
LATVIA	F	F	F	F	F	F	F	F			F	F	
LEBANON	Р	P	P				P	Р			F	F	
LIBERIA	F	F	F	F	F	F	F	F			F	F	
LIBYAN ARAB	F	F	F	F	P	P	F	F			F	F	
JAMAHIRIYA													
LITHUANIA	F	F	F	F			F	F			F	F	
LUXEMBOURG	F	F	F	F	Р	P	F	F			F	F	
Maderia, IRS	F	F	F	F	F	F	F	F			F	F	
+(Portugal)													

Conventions	SOL	AS			ISM		MA	RPOL 7	3/78		LL66	TC69	AFS-
Flags	SC	SE	SR	PS	DOC	SMC	MA- I	MA-II	MA- IV	MA- VI			
MALAYSIA	F	Р	P		Р	P	F	F			F	Р	
MALDIVES	F	F	F	F			F	F			F	F	
MALTA	F	F	F	F	F	F	F	F			F	F	F
MARSHALL ISLANDS	F	F	F	F	F	F	F	F			F	F	F
MAURITIUS	F	F	F	F	F	F	F	F			F	F	
MEXICO					F	F					F		
MONACO											F		
MOROCCO	Р	Р	P	Р	Р	Р	P	P			F	F	
MOZAMBIQUE	F	F	F								F		
MYANMAR	F	F	F	F	F	F	F	F			F	F	
Nauru	F	F								F	F	F	
NETHERLANDS	Р	Р	P	P	Р	Р	P	P		F	F		
Netherlands Antilles	Р	P	P	Р	Р	Р	Р	P		F	F		
+(Netherlands)													
NEW ZEALAND	F	F	F	F	F	F	F	F			P	F	
NICARAGUA	F	F	F								F		
NIGERIA	F				F	F	F	F			F	F	
NORWAY	F	F	F		F	F	F	F			F	F	F
Norway (NIS)	F	F	F		F	F	F	F			F	F	F
OMAN	F	F	F	F			F	F			F	F	
PAKISTAN	F	F	F		F	F	F	F			F	F	
PANAMA	F	F	F	F	F	F	F	F		F	F	F	
PAPUA NEW GUINEA	F	F	F	F	F	F	F	F		F	F	F	
PERU					F	F							
PHILIPPINES	F	F	Р	F	F	F	F	F			F	F	
POLAND													
PORTUGAL	Р	Р			F	F	Р	Р			Р		
QATAR	F	F	F	F			F	F			F	F	Р
ROMANIA					Р	Р							
SAINT LUCIA	F	F	F	F			F	F			F	F	
SAINT VINCENT AND THE GRENADINES	F	F	F	F	Р	Р	F	F			F	F	F
SAMOA				F	F								
SAUDI ARABIA	F	F	F	F	F	F	F	F			F	F	
SENEGAL											F		
SEYCHELLES	F	F	F	F	F	F	F	F			F	F	
SINGAPORE	F	F	F	F	F	F	F	F			F	F	
SLOVAKIA	F	F	F	F			F	F		F	F	F	
SOMALIA	F	F	F	F							F		
SOUTH AFRICA	F						Р				F		
SRI LANKA	F	F	F	F			F	F			F	F	
SUDAN	F	F	F	F			F	F			F	F	
SURINAME	F	F	F	F			F	F			F		
SWEDEN	F				F	F	F	F			F		

Conventions	SOLAS		ISM				MA	RPOL 7	3/78		LL66	TC69	AFS-
Flags	SC	SE	SR	PS	DOC	SMC	MA- I	MA-II	MA- IV	MA- VI			
SWITZERLAND	F	F	F	F	F	F	F	F			F	F	
SYRIAN ARAB REPUBLIC	Р										F		
THAILAND	P	Р	Р	P	Р	P	Р	P			P	Р	
TOGO	F	F	F	F			F	F			F	F	
TONGA	F	F	F	F	F	F	F	F			F	F	
TRINIDAD AND TOBAGO	F	F	F	F	F	F	F	F		F	F	F	
TUNISIA											F		
TURKEY	P	Р	P	P	F	F	F	F			F	P	
Turks and Caicos Islands	3											F	
Tuvalu	F	F	F	F			F	F			F	F	
Uganda	F	F	F				F	F			F		
UNITED ARAB EMIRATES	F	F	F	F	F	F	F	F		F	F	F	
UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND	Р	Р	Р	Р			Р				F	F	
UNITED REPUBLIC OF TANZANIA	F	F	F	F							F	F	
UNITED STATES OF AMERICA	F										F	F	
VANUATU	F	F	F	F	F	F	F	F	F		F	F	
VENEZUELA	Р	Р	P	Р	Р	P	Р	P	Р		F	F	
Zambia	F	F	F	F							F		

Further information can be obtained by contacting:

External Affairs

Lloyd's Register 71 Fenchurch Street London EC3M 4BS

Tel: +44 (0)20 7423 2846 Fax: +44 (0)20 7423 2213 Email: external-rep@lr.org

Europe, Middle East and Africa Regional Office

Lloyd's Register 71 Fenchurch Street London EC3M 4BS

Tel: +44 (0)20 7709 9166 Fax: +44 (0)20 7488 4796 Email: emea-team@lr.org

Asia Regional Office

Lloyd's Register Suite 3501 China Merchants Tower Shun Tak Centre 168-200 Connaught Road Central Hong Kong, SAR of PRC

Tel: +852 2287 9333 Fax: +852 2526 2921 Email: asia@lr.org

Lloyd's Register North America, Inc.

1401 Enclave Parkway, Suite 200, Houston, Texas, 77077, USA

Tel: +1 281 675 3100 Fax: +1 281 675 3144

www.lr.org

© Lloyd's Register of Shipping, 2003 Registered office: 71 Fenchurch Street, London EC3M 4BS February 2003/V1

