THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines regarding maritime safety and the prevention and control of marine pollution from ships,

RECALLING ALSO the adoption by:


(b) resolution MEPC.39(29) of amendments to introduce the harmonized system of survey and certification into the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the 1978 Protocol relating thereto (MARPOL);

(c) resolution MEPC.132(53) of amendments to introduce the harmonized system of survey and certification into MARPOL Annex VI; and

(d) the resolutions given below of amendments to introduce the harmonized system of survey and certification into:

(i) the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) (resolutions MEPC.40(29) and MSC.16(58));
(ii) the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code) (resolution MSC.17(58)); and

(iii) the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code) (resolutions MEPC.41(29) and MSC.18(58)).

RECALLING ALSO that, by resolution A.1053(27), it adopted the Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), 2011 (hereinafter referred to as “the Survey Guidelines”) with a view to assisting Governments in implementing the requirements of the aforementioned instruments,

RECOGNIZING the need for the Survey Guidelines to be further revised to take account of amendments to the IMO instruments referred to above that have entered into force or become effective since the adoption of resolution A.1053(27),

HAVING CONSIDERED the recommendations made by the Marine Environment Protection Committee, at its sixty-fifth session, and the Maritime Safety Committee, at its ninety-second session,

1 ADOPTS the amendments to the Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), 2011, as set out in the annex to the present resolution;

2 INVITES Governments carrying out surveys required by the relevant IMO instruments to apply the provisions of the annexed amendments to the Survey Guidelines;

3 REQUESTS the Maritime Safety Committee and the Marine Environment Protection Committee to keep the Survey Guidelines under review and amend them as necessary.
Annex

AMENDMENTS TO THE SURVEY GUIDELINES UNDER THE HARMONIZED SYSTEM OF SURVEY AND CERTIFICATION, 2011
(RESOLUTION A.1053(27))

Note: The struck-out text indicates deletions and the underlined text shows additions or changes to the Survey Guidelines.

1 Amendments to General – 1 Introduction:

1.2 These Guidelines take into account amendments to statutory instruments which have entered into force up to and including 31 December 2013 (see appendix 1) and contain the following:

2 Amendments to General – 3 Application and Arrangement of the Guidelines

3.4 When appropriate, the detailed requirements for the various surveys contain a section that is applicable to all cargo ships followed by a section that only applies to oil tankers specific ship types.

3.8bis For the application of these Guidelines, the following guidance on terms used in the survey requirements is provided:

.1 "Examining" except where used in "examining the plans" or "examining the design" should be understood as a thorough examination, using appropriate techniques, of the components, system or appliance in question for satisfactory provision, arrangement and condition and for any signs of defects, deterioration or damage;

.2 "Testing" should be understood as a functional test of the system or appliance in question, to confirm its satisfactory operation and performance for its intended use.

3 Amendments to annex 1 – Survey Guidelines under the 1974 SOLAS Convention as modified by the 1988 Protocol relating thereto – (E) 1 Guidelines for Surveys for the Cargo Ship Safety Equipment Certificate:

(EI) 1.1.1.1 examining the plans for the fire pumps including the emergency fire pump¹, if applicable, fire mains, hydrants, hoses and nozzles and the international shore connection (SOLAS 74/00 regs. II-2/10.2 and 10.4.4 and FSSC chs. 2 and 12)

(EI) 1.1.1.6 checking the provision of a fixed fire detection and fire alarm system for machinery spaces including periodically unattended machinery spaces and enclosed spaces containing incinerators (SOLAS 74/00/10 regs. II-2/7.2, 7.3 and 7.4; FSSC ch. 9) (SOLAS 74/88 regs. II-2/13 and 14);

¹ Refer to the unified interpretation of chapter 12 of the FSS Code, MSC.1/Circ.1388.
examine the plans for the special arrangements for the carriage of dangerous goods, when appropriate, including water supplies, electrical equipment and wiring, fire detection including sample extraction smoke detection systems, where applicable, ventilation, bilge pumping, personnel protection and any water spray system (SOLAS 74/00 reg. II-2/19 (except 19.3.8, 19.3.10 and 19.4); FSSC chs. 9 and 10) (SOLAS 74/88 reg. II-2/54);

examine, where applicable, the approved documentation for the alternative design and arrangements (SOLAS 00/06 reg. II-2/17 and III/38);

examine the design of the survival craft, including their construction equipment, fittings, release mechanisms launching and recovery appliances and embarkation and launching arrangements (SOLAS 74/96/06/11 reggs. III/4, 16, 31, 32 to 33; LSAC sections 3.2, 4.1 to 4.9, 6.1 and 6.2);

check the plans provision and specification of the pilot transfer arrangement, the pilot ladders, the combination arrangements, where applicable, the access to the ship's deck and the associated equipment and lighting and hoists of pilot transfer arrangements (SOLAS 74/88/10 reg. V/23);

For the examination of plans and designs of the life-saving appliances and the other equipment of cargo ships the additional requirements for oil tankers should consist of:

examine the plans for the cargo tank protection (SOLAS 74/00 regs. II-2/4.5.3, 4.5.5, 4.5.6, 4.5.7 and 10.8; FSSC chs. 14 and 15) (SOLAS 74/88 regs. II-2/60 and 62); and

examine the plans for gas measurement in double-hull spaces and double bottom spaces, including the fitting of permanent gas sampling lines, where appropriate (SOLAS 10 reg. II-2/4.5.7.2)

examine the plans for the fixed hydrocarbon gas detection system for measuring hydrocarbon gas concentrations in all ballast tanks and void spaces of double-hull and double-bottom spaces adjacent to the cargo tanks, including the forepeak tank and any other tanks and spaces under the bulkhead deck adjacent to cargo tanks (SOLAS 10 reg. II-2/4.5.7.3 and FSSC ch. 16);

examine the fire pumps and fire main and the disposition of the hydrants, hoses and nozzles and the international shore connection and checking that each fire pump, including the emergency fire pump, can be operated separately so that two jets of water are produced simultaneously from different hydrants at any part of the ship whilst the required pressure is maintained in the fire main; and testing that the emergency fire pump has the required capacity, and if the emergency fire pump is the main supply of water for any fixed fire-extinguishing system, checking that the emergency fire pump has the capacity for this system (SOLAS 74/00 reg. II-2/10.2; FSSC chs. 2 and 12) (SOLAS 74/88 regs. II-2/4 and 19);
1.1.3.8 examining any fire detection and alarm system and any automatic sprinkler, fire detection and fire alarm system, and any sample extraction smoke detection system, and confirming that installation tests have been satisfactorily completed (SOLAS 74/00/10 regs. II-2/7.2, 7.3, 7.4, 7.5.1, 7.5.5, 19.3.3 and 20.4; FSSC chs. 9 and 10) (SOLAS 74/88 regs. II-2/11, 13, 14, 53 and 54);

1.1.3.11bis examining, where applicable, the alternative design and arrangements for fire safety or life-saving appliances and arrangements, in accordance with the test and inspection requirements, if any, specified in the approved documentation (SOLAS 00/06 regs. II-2/17 and III/38);

1.1.3.35 checking the provision of the pilot transfer arrangement, the access to the ship's deck and the associated equipment and lighting, checking the and, as appropriate, the deployment or operation of the pilot ladders and hoists/pilot transfer the combination arrangements (SOLAS 74/00/10 reg. V/23);

1.1.4 For the life-saving appliances and the other equipment of cargo ships for the additional requirements for oil tankers the survey during construction and after installation should consist of:

1.1.4.5 examining, for all tankers, the arrangements for cargo tank protection, (SOLAS 74/00/10 regs. II-2/4.5.3, 4.5.6, and 10.8; FSSC chs. 14 and 15) (SOLAS 74/88 regs. II-2/60 and 62);

1.1.4.6 checking, for all tankers, the provision of at least one portable instrument for measuring oxygen and one for measuring flammable vapour concentrations, together with a sufficient set of spares, and suitable means for the calibration of these instruments (SOLAS 10 reg. II-2/4.5.7.1);

1.1.4.7 examining the arrangements for gas measurement in double-hull spaces and double bottom spaces, including the fitting of permanent gas sampling lines, where appropriate (SOLAS 10 reg. II-2/4.5.7.2)

1.1.4.8 examining, for oil tankers of 20,000 tonnes deadweight and above, the fixed hydrocarbon gas detection system for measuring hydrocarbon gas concentrations in all ballast tanks and void spaces of double-hull and double-bottom spaces adjacent to the cargo tanks, including the forepeak tank and any other tanks and spaces under the bulkhead deck adjacent to cargo tanks, and confirming that the installation tests have been satisfactorily completed (SOLAS 10 reg. II-2/4.5.7.3 and FSSC ch. 16);

1.1.5.3bis confirming that, where applicable, the approved documentation for the alternative design and arrangement is on board (SOLAS 00/06 regs. II-2/17 and III/38);

1.1.5.9bis checking that records are provided, identifying any pilot ladders placed into service (SOLAS 10 reg. V/23.2.4).
1.1.5.11 checking that the International Code of Signals and an up-to-date copy of Volume III of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual have been provided. (SOLAS 74/00/02 reg. V/21);

1.1.6 For the life-saving appliances and the other equipment of cargo ships, concerning the additional requirements for oil tankers the check that the required documentation has been placed on board should consist of:

1.1.6.2 confirming that the operating and maintenance instructions for the fixed hydrocarbon gas detection system are provided (SOLAS 10 reg. II-2/4.5.7.3 and FSSC ch. 16);

1.2.1.11bis confirming, when appropriate, the validity of the International Energy Efficiency Certificate (MARPOL Annex VI, regs. 6.4 and 6.5);

1.2.1.15 confirming that, where applicable, the approved documentation for the alternative design and arrangements is on board (SOLAS 00/06 regs. II-2/17 and III/38);

1.2.1.23bis confirming that, where applicable, a factual statement has been provided on board by the lifeboat release and retrieval system manufacturer or one of their representatives, that confirms the successful completion of the overhaul examination of an existing lifeboat release and retrieval system found to be compliant with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code, or, alternatively, that a statement of acceptance of the installation of a replacement release and retrieval system to an existing lifeboat is available (SOLAS 11 reg. III/1.5; LSAC section 4.4.7.6)

1.2.1.30 checking that the International Code of Signals and an up-to-date copy of Volume III of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual have been provided. (SOLAS 74/00/02 reg. V/21);

1.2.1.30bis checking that records are maintained identifying any pilot ladders placed into service and any repair effected (SOLAS 10 reg. V/23.2.4);

1.2.1.32 checking that records of navigational activities and daily reporting have been maintained (SOLAS 74/00/04-03 reg. V/28);

1.2.2.8 examining, as far as possible, and testing, as feasible, any fire detection and alarm system and any sample extraction smoke detection system (SOLAS 74/00/10 regs. II-2/7.2, 7.3, 7.4, 7.5.1, 7.5.5, 19.3.3 and 20.4; FSSC chs. 9 and 10) (SOLAS 74/88 regs. II-2/11, 13, 14, 53 and 54);

1.2.2.13bis examining, where applicable, the alternative design and arrangements for fire safety or life-saving appliances and arrangements, in accordance with the test, inspection and maintenance requirements, if any, specified in the approved documentation (SOLAS 00/06 regs. II-2/17 and III/38);
(EA) 1.2.2.17 examining each survival craft, including its equipment and, when fitted, the on-load release mechanism and hydrostatic lock and, for inflatable liferafts, the hydrostatic release unit and float-free arrangements. Checking that the hand-held flares are not out of date (SOLAS 74/00 regs. Ill/16, 20 and 31; LSAC sections 2.5, 3.1 to 3.3, 4.1.5, 4.4.7 and 4.4.8);

(EA) 1.2.2.35 checking the provision, and operation and the annual test has been carried out for of the automatic identification system, where fitted, and whether the annual test has been carried out and a copy of the test report is on board (SOLAS 74/00/04/10 regs. V/18.9 and 19);

(EA) 1.2.2.37 checking the provision and specification of the pilot ladders and hoists/pilot transfer arrangements (SOLAS 74/00/10 reg. V/23);

(EA) 1.2.3 For the life-saving appliances and the other equipment of cargo ships, concerning the additional requirements for oil tankers the annual survey should consist of:

(EA) 1.2.3.4bis checking for all tankers, the provision of at least one portable instrument for measuring oxygen and one for measuring flammable vapour concentrations, together with a sufficient set of spares, and suitable means for the calibration of these instruments (SOLAS 10 reg. II-2/4.5.7.1);

(EA) 1.2.3.4ter examining the arrangements for gas measurement in double-hull spaces and double bottom spaces, including the fitting of permanent gas sampling lines, where appropriate (SOLAS 10 reg. II-2/4.5.7.2)

(EA) 1.2.3.4quad examining, as far as possible, and testing the fixed hydrocarbon gas detection system (SOLAS 10 reg. II-2/4.5.7.3 and FSSC ch. 16);

(EP) 1.3.2.4 testing any fire detection and alarm system and any sample extraction smoke detection system (SOLAS 74/00/10 regs. II-2/7.2, 7.3, 7.4, 7.5.5, 19.3.3 and 20.4; FSSC chs. 9 and 10) (SOLAS 74/88 regs. II-2/11, 13, 14, 53 and 54);

(EP) 1.3.3 for the life-saving appliances and the other equipment for the additional requirements for oil-tankers the periodical survey should consist of:

(ER) 1.4.3 for the life-saving appliances and the other equipment of cargo ships, concerning the additional requirements for oil–tankers the renewal survey should consist of:

4 Amendments to annex 1 – Survey Guidelines under the 1974 SOLAS Convention as modified by the 1988 Protocol relating thereto – (C) 2 Guidelines for Surveys for the Cargo Ship Safety Construction Certificate:

(CI) 2.1.1.1bis examining plans to verify that bulk carriers of 150 m in length and above, where appropriate, meet the applicable structural requirements of an organization recognized by the Administration, or national standards of the Administration, conforming to the functional requirements of the Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers (SOLAS 10 reg. II-1/3-10);
examining, where applicable, the approved documentation for the alternative design and arrangements (SOLAS 00/06 regs. II-1/55 and II-2/17);

examining plans to verify that oil tankers of 150 m in length and above, where appropriate, meet the applicable structural requirements of an organization recognized by the Administration, conforming to the functional requirements of the Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers (SOLAS 10 reg. II-1/3-10);

confirming in accordance with the survey plan that bulk carriers of 150 m in length and above, where appropriate, meet the applicable structural requirements of an organization recognized by the Administration, or national standards of the Administration, conforming to the functional requirements of the Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers (SOLAS 10 reg. II-1/3.10);

confirming and recording the ability of the machinery to reverse the direction of the thrust of the propeller in sufficient time and to bring the ship to rest within a reasonable distance, including the effectiveness of any supplementary means of manoeuvring or stopping the ship (SOLAS 74/88 reg. II-1/28);

confirming that the main and auxiliary steering gear are so arranged that the failure of one of them does not render the other inoperative (SOLAS 74/88 reg. II-1/29);

confirming that the main steering gear is capable of steering the ship at maximum ahead service speed and is capable of putting the rudder over from 35° on one side to 35° on the other side with the ship at its deepest seagoing draught and running ahead at maximum ahead service speed and, under the same conditions, from 35° on either side to 30° on the other side in not more than 28 s (SOLAS 74/88 reg. II-1/29);

confirming that the auxiliary steering gear is capable of steering the ship at navigable speed and of being brought speedily into action in an emergency and that it is capable of putting the rudder over from 15° on one side to 15° on the other side in not more than 60 s with the ship at its deepest seagoing draught and running ahead at one half of the maximum ahead service speed or 7 knots, whichever is the greater (SOLAS 74/88 reg. II-1/29);

confirming that, where the main steering gear comprises two or more identical power units and an auxiliary steering gear is not fitted, a defect can be isolated so that steering capability can be maintained or speedily regained after a single failure in its piping system or in one of the power units (SOLAS 74/88 reg. II-1/29);

For ships fitted with alternative propulsion and steering arrangements other than traditional arrangements, such as but not limited to azimuthing propulsors or water jet propulsion systems, refer to MSC.1/Circ.1416.

For trials with the ship not at the deepest seagoing draught, refer to MSC.1/Circ.1425.
(CI) 2.1.3.53bis examining, where applicable, the alternative design and arrangements for machinery or electrical installations, or fire safety, in accordance with the test and inspection requirements, if any, specified in the approved documentation (SOLAS 00/06 regs. II-1/55 and II-2/17);

(CI) 2.1.3.60 confirming that installed materials do not contain asbestos\(^\text{4}\) (SOLAS 74/00/09 reg. II-1/3-5);

(CI) 2.1.3.62bis prior to the review of the coating technical file:

(CI) 2.1.3.62bis.1 checking that the Technical Data Sheet and Statement of Compliance or Type Approval Certificate comply with the Standard;

(CI) 2.1.3.62bis.2 checking that the coating identification on representative containers is consistent with the coating identified in the Technical Data Sheet;

(CI) 2.1.3.62bis.3 checking that the inspector is qualified in accordance with the qualification standards;

(CI) 2.1.3.62bis.4 checking that the inspector's reports of surface preparation and the coating's application indicate compliance with the manufacturer's Technical Data Sheet and Statement of Compliance or Type Approval Certificate; and

(CI) 2.1.3.62bis.5 monitoring the implementation of the coating inspection requirements.

(CI) 2.1.3.62ter reviewing the Coating Technical File (SOLAS 74/00/06/10 reg. II-1/3-2 and II-1/3-11; MSC.215(82) and MSC.288(87));

(CI) 2.1.3.63 confirming for oil tankers and bulk carriers, when appropriate, the provision of means of access to cargo and other spaces in accordance with the arrangements in the Ship Structures Access Manual (SOLAS 74/00/02/04 reg. II-1/3-6, SOLAS 10 reg. II-1/3-10 and MSC.287(87));

(CI) 2.1.4.1bis confirming in accordance with the survey plan that oil tankers of 150 m in length and above, where appropriate, meet the applicable structural requirements of an organization recognized by the Administration, or national standards of the Administration, conforming to the functional requirements of the Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers (SOLAS 10 reg. II-1/3-10);

(CI) 2.1.4.9 confirming that all cargo oil tanks in crude oil tankers have either:

(CI) 2.1.4.9.1 been coated in accordance with MSC.288(87); or

(CI) 2.1.4.9.2 been protected by alternative means of corrosion protection or utilization of approved corrosion-resistant material (steel) in accordance with MSC.289(87) (SOLAS 10 reg. II-1/3-11).

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\(^{4}\) Guidance on the means to verify that installed materials do not contain asbestos is contained in MSC.1/Circ.1426 on Unified interpretation on the implementation of SOLAS regulation II-1/3-5 and MSC.1/Circ.1379.
(CI) 2.1.5.1
the provisions of (CI) 2.1.4 except (CI) 2.1.4.1bis.

(CI) 2.1.6.1 confirming that the stability information and the damage control plans and damage control booklets have been provided (SOLAS 74/88 regs. II-1/22 and 23-1) (SOLAS 06 regs. II-1/5-1 and 19);

(CI) 2.1.6.3 confirming that the approved Cargo Securing Manual for ships carrying cargo units including containers is provided on board (SOLAS 74/94 98 reg. VI/5.6);

(CI) 2.1.6.6 confirming when appropriate that a coating technical file reviewed by the Administration has been provided on board (SOLAS 74/00/06/10 regs. II-1/3-2 and 3-11);

(CI) 2.1.6.7bis confirming, for oil tankers and bulk carriers of 150 m in length and above, that the Ship Construction File has been provided (SOLAS 10 reg. II-1/3-10 and MSC.290(87));

(CI) 2.1.6.7ter confirming, when appropriate, that a technical file verified by the Administration has been provided on board (SOLAS 10 reg. II-1/3-11 and MSC.289(87));

(CA) 2.2.1.11bis confirming, when appropriate, the validity of the International Energy Efficiency Certificate (MARPOL Annex VI, regs. 6.4 and 6.5);

(CA) 2.2.1.17 confirming that the stability information, including damage stability, where applicable, and the damage control plans and damage control booklets are on board (SOLAS 74/88 regs. II-1/22, 23 and 25) (SOLAS 06 regs. II-1/5-1 and 19);

(CA) 2.2.1.26 confirming that approved Cargo Securing Manual for ships carrying cargo units including containers is on board (SOLAS 74/94 98 reg. VI/5.6);

(CA) 2.2.1.30 confirming when appropriate that the coating technical file is available on board and maintained (SOLAS 74/00/06/10 regs. II-1/3-2 and 3-11);

(CA) 2.2.1.31bis confirming, where appropriate, for crude oil tankers, that a technical file verified by the Administration has been provided on board (SOLAS 10 reg. II-1/3-11 and MSC.289(87));

(CA) 2.2.1.31ter confirming, for oil tankers and bulk carriers of 150 m in length and above, that the Ship Construction File is available (SOLAS 10 reg. II-1/3-10 and MSC.287(87));

(CA) 2.2.2.2bis examining, for bulk carriers of 150 m and above, where appropriate, the ship's structure in accordance with the Ship Construction File, taking into account identified areas that need special attention (SOLAS 10 reg. II-1/3-10 and MSC.287(87));

(CA) 2.2.2.24bis examining, where applicable, the alternative design and arrangements for machinery or electrical installations, or fire safety, in accordance with the test, inspection and maintenance requirements, if any, specified in the approved documentation (SOLAS 00/06 regs. II-1/55 and II-2/17);
confirming that no new materials containing asbestos were installed on board\(^1\) (SOLAS 74/00/04/09 reg. II-1/3-5);

confirming that the coating system in cargo oil tanks of crude oil tankers, when appropriate, is maintained and that in-service maintenance and repair activities are recorded in the coating technical file (SOLAS 10 reg. II-1/3-11 and MSC.288(87));

examining, for oil tankers of 150 m in length and above, where appropriate, the ship’s structure in accordance with the Ship Construction File, taking into account identified areas that need special attention (SOLAS reg. II-1/3-10 and MSC.287(87));

the provisions of (CA) 2.2.3 except (CA) 2.2.3.15\(^{bis}\) and (CA) 2.2.3.17.

the provisions of (CA) 2.2.3 except (CA) 2.2.3.15\(^{bis}\) and (CA) 2.2.3.17.

the provisions of (CA) 2.2.3 except (CA) 2.2.3.15\(^{bis}\) and (CA) 2.2.3.17.

5 Amendments to annex 1 – Survey Guidelines under the 1974 SOLAS Convention as modified by the 1988 Protocol relating thereto – (R) 4 Guidelines for Surveys for the Cargo Ship Safety Radio Certificate:

checking that the unique beacon identification code EPIRB ID is clearly marked on the outside of the equipment and, where possible, decoding the unique beacon identification code EPIRB identity number confirming it is correct;

checking that the unique beacon identification code programmed in the EPIRB corresponds with the unique beacon identification code assigned by or on behalf of the Administration;

checking that the MMSI number if encoded in the beacon corresponds with the MMSI number assigned to the ship;

confirming, when appropriate, the validity of the International Energy Efficiency Certificate (MARPOL Annex VI, regs. 6.4 and 6.5);


examining the plans for the fire pumps, including the emergency fire pump\(^1\) if applicable, fire mains, hydrants, hoses and nozzles and the international shore connection (SOLAS 74/88 reg. II-1/39 and SOLAS 74/00 reg. II-2/10.2; FSSC chs. 2 and 12) (SOLAS 74/88 reg. II-1/39 and regs. II-2/4 and 19);

examining the plans for the protection of special category spaces and other cargo spaces (SOLAS 74/88 regs. II-2/37, 38 and 39) (SOLAS 74/00/06/10 regs. II-2/ 7.6, 9 and 20; FSSC chs. 9 and 10);
(PI) 5.1.1.20 examining the plans for the fixed fire detection and alarm system, the crew alarm and the public address system or other effective means of communication—and any automatic sprinkler, fire detection and fire alarm system, as applicable, in machinery spaces, including enclosed spaces containing incinerators, accommodation and service spaces and control spaces (SOLAS 74/00/06/10 reg. II-2/7 (except 7.5.5, 7.6 and 7.9); FSSC chs. 8, 9 and 10) (SOLAS 74/88 reg. II-2/40) (SOLAS 74/00/06 regs. II-2/7 and 12) (SOLAS 74/88 reg. II-2/40);

(PI) 5.1.1.20bis examining the plans for the crew alarm and the public address system or other effective means of communication (SOLAS 74/00/06 reg. II-2/7.9; FSSC ch. 9; LSAC ch. 7) (SOLAS 74/88 reg. II-2/40);

(PI) 5.1.1.21 examining the plans for the special arrangements for the carriage of dangerous goods, when appropriate, including water supplies, electrical equipment and wiring, fire detection sample extraction smoke detection system, bilge pumping and personnel protection (SOLAS 74/88 regs. II-2/41 and 54) (SOLAS 74/00/08 reg. II-2/19; FSSC chs. 9 and 10);

(PI) 5.1.1.23 examining the design of the survival craft, including their construction, equipment, fittings, release mechanisms, launching and recovery appliances and embarkation and launching arrangements (SOLAS 74/88/06 regs. III/4, 20 to 24, 36, 38 to 44 and 48) (SOLAS 06 reg. III/4) (LSAC sections 3.2, 4.1 to 4.6, 6.1 to 6.2);

(PI) 5.1.1.35 checking the plans provision and specification of the pilot transfer arrangement, the pilot ladders, the combination arrangements, where applicable, the access to the ship's deck and the associated equipment and lighting and hoists/pilot transfer arrangements (SOLAS 74/00/10 reg. V/23);

(PI) 5.1.2.12 confirming the arrangements for closing sidescuttles and their deadlights, also scuppers, sanitary discharges and similar openings and other inlets and discharges in the shell plating below the bulkhead deck (SOLAS 06 reg. II-1/43-15);

(PI) 5.1.2.30 confirming and recording the ability of the machinery to reverse the direction of the thrust of the propeller in sufficient time and to bring the ship to rest within a reasonable distance, including the effectiveness of any supplementary means of manoeuvring or stopping the ship² (SOLAS 74/88 reg. II-1/28);

(PI) 5.1.2.31 confirming that the main and auxiliary steering gear are so arranged that the failure of one of them does not render the other inoperative² (SOLAS 74/88 reg. II-1/29);

(PI) 5.1.2.34 confirming that the main steering gear is capable of steering the ship at maximum ahead service speed and is capable of putting the rudder over from 35° on one side to 35° on the other side with the ship at its deepest seagoing draught³ and running ahead at maximum ahead service speed and, under the same conditions, from 35° on either side.
to 30° on the other side in not more than 28 s² (SOLAS 74/88 reg. II-1/29);

(PI) 5.1.2.35 confirming that the auxiliary steering gear is capable of steering the ship at navigable speed and of being brought speedily into action in an emergency and that it is capable of putting the rudder over from 15° on one side to 15° on the other side in not more than 60 s with the ship at its deepest seagoing draught and running ahead at one half of the maximum ahead service speed or 7 knots, whichever is the greater² (SOLAS 74/88 reg. II-1/29);

(PI) 5.1.2.37 confirming that, where the main steering gear comprises two or more identical power units and an auxiliary steering gear is not fitted, a defect can be isolated so that steering capability can be maintained or speedily regained after a single failure in its piping system or in one of the power units² (SOLAS 74/88 reg. II-1/29);

(PI) 5.1.2.65.1 for passenger ships, constructed on or after 1 July 2010¹⁰, confirming provision of supplementary lighting in all cabins, and checking that such lighting automatically illuminates and remains on for a minimum of 30 min when power to the normal cabin lighting is lost (SOLAS 06/10 reg. II-1/41.6);

¹⁰ Refer to Guidance for application of SOLAS II-I/41.6 (MSC.1/Circ.1372)

(PI) 5.1.2.67bis examining, where applicable, the alternative design and arrangements for machinery or electrical installations, fire safety, or life-saving appliances and arrangements, in accordance with the test and inspection requirements, if any, specified in the approved documentation (SOLAS 00/06 regs. II-1/55, II-2/17 and III/38);

(PI) 5.1.2.68 examining the fire pumps and fire main and the disposition of the hydrants, hoses and nozzles and the international shore connection and checking that each fire pump, including the emergency fire pump, can be operated separately so that two jets of water are produced simultaneously from different hydrants at any part of the ship whilst the required pressure is maintained in the fire main and testing that the emergency fire pump, if applicable, has the required capacity, and, if the emergency fire pump is the main supply of water for any fixed fire-extinguishing system, checking that the emergency fire pump has the capacity for this system¹ (SOLAS 74/88 regs. II-2/4 and 19, FSSC chs. 2 and 12);

(PI) 5.1.2.83 confirming the fire protection arrangements, including fire detection and sample extraction smoke detection systems for special category spaces and other cargo spaces for cargo and dangerous goods and testing, as appropriate, the operation of the means for closing the various openings (SOLAS 74/88 regs. II-2/37, 38 and 39) (SOLAS 74/00 regs. II-2/7.6 and 10.7; FSSC chs. 5, 9 and 10);

(PI) 5.1.2.83bis confirming the fire protection arrangements, including fire detection and sample extraction smoke detection systems, where applicable for vehicle, special category and ro-ro spaces and testing, as appropriate, the operation of the means for closing the various openings.
(SOLAS 74/88 regs. II-2/37, and 38) (SOLAS 74/00 reg. II-2/20 (except 20.5); FSSC chs. 5, 6, 7, 9, 10);

(PI) 5.1.2.84 confirming and testing, as appropriate, the any fixed fire detection and alarm system, the special alarm and the public address system or other effective means of communication and any automatic sprinkler, fire detection and fire alarm system, as applicable, in machinery spaces, including enclosed spaces containing incinerators, accommodation, service and control spaces (SOLAS 74/88 reg. II-2/40) (SOLAS 74/00/06/10 reg. II-2/7 (except 7.5.5, 7.6 and 7.9); FSSC chs. 8 and 9) (SOLAS 74/88 reg.II-2/40)(SOLAS 74/00/06 regs.II-2/7 and 12);

(PI) 5.1.2.84bis confirming and testing the special alarm and the public address system or other effective means of communication (SOLAS 74/88 reg. II-2/40) (SOLAS 74/00/06/10 reg. II-2/12; LSAC ch. 7);

(PI) 5.1.2.86 examining, when appropriate, the special arrangements for carrying dangerous goods, including checking the electrical equipment and wiring, fire detection, ventilation and boundary insulation, the provision of protective clothing and portable appliances and the testing of the water supply, bilge pumping and any water spray system (SOLAS 74/88 regs. II-2/41 and 54) (SOLAS 74/00/08 reg. II-2/19);

(PI) 5.1.2.88 examining each survival craft, including its equipment, and that the required number of search and rescue locating devices are fitted in liferafts and those liferafts are clearly marked (SOLAS 74/88/00/02/08 regs. III/20, 21 and 26; LSAC sections 2.3 to 2.5, 3.2 and 4.1 to 4.6);

(PI) 5.1.2.90 deployment of 50% of the MES after installation (LSAC section 5.1 and MSC/Circ.809 LSAC paragraph 6.2.2.2);

(PI) 5.1.2.102 checking that a decision support system is provided for the Master (SOLAS 74/00 reg. III/29; SOLAS 06 regs. II-2/21 and 22);

(PI) 5.1.2.109 checking that the International Code of Signals and an up-to-date copy of Volume III of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual have been provided (SOLAS 74/00/02 reg. V/21);

(PI) 5.1.2.110 checking the provision of the pilot transfer arrangement, the access to the ship’s deck and the associated equipment and lighting, checking the and, as appropriate, the deployment or operation of the pilot ladders and hoists/pilot transfer combination arrangements, where applicable (SOLAS 74/00/10 reg. V/23);

(PI) 5.1.2.126.4 checking that the unique beacon identification code EPIRB ID is clearly marked on the outside of the equipment and, where possible, decoding the unique beacon identification code EPIRB identity number confirming it is correct;

(PI) 5.1.2.126.4bis checking that the unique beacon identification code programmed in the EPIRB corresponds with the unique beacon identification code assigned by or on behalf of the Administration;
(PI) 5.1.2.126.4ter checking that the MMSI number if encoded in the beacon corresponds with the MMSI number assigned to the ship;

(PI) 5.1.2.135 checking that the provision, and, operation and the annual test has been carried out for of the automatic identification system (SOLAS 74/00/04 reg. V/19);

(PI) 5.1.2.137 confirming that installed materials do not contain asbestos (SOLAS 09 reg. II-1/3-5);

(PI) 5.1.3.1 confirming that the stability information and damage control plans and control booklets have been provided (SOLAS 74/88 regs. II-1/22 and 23) (SOLAS 06 regs. II-1/5-1 and 19);

(PI) 5.1.3.10 confirming that emergency instructions are available for each person on board, that the muster list is posted in conspicuous places, and that they are in a language understood by the persons on board (SOLAS 74/00 regs. III/8 and §337);

(PI) 5.1.3.16bis checking that records are provided, identifying any pilot ladders placed into service (SOLAS 10 reg. V/23.2.4);

(PR) 5.2.1.8bis confirming, when appropriate, the validity of the International Energy Efficiency Certificate (MARPOL Annex VI, regs. 6.4 and 6.5);

(PR) 5.2.1.17 confirming that the stability information and damage control plans and damage control booklets are readily available (SOLAS 74/88 regs. II-1/22 and 23) (SOLAS 06 regs. II-1/5-1 and 19);

(PR) 5.2.1.27bis confirming that, if applicable, a factual statement issued by the manufacturer of the lifeboat release mechanism is available, confirming the successful overhaul examination of a mechanism compliant with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the LSA Code, or, alternatively, that a statement of acceptance of the installation of a replacement release and retrieval system to an existing lifeboat is available (SOLAS 11 reg. III/1.5; LSAC section 4.4.7.6);

(PR) 5.2.1.35bis checking that records are maintained identifying any pilot ladders placed into service and any repair effected (SOLAS 10 reg. V/23.2.4);

(PR) 5.2.1.38 confirming the provisions of (PI) 5.1.3.14 to (PI) 5.1.3.19 except (PI) 5.1.3.16bis;

(PR) 5.2.2.31 confirming that the main and auxiliary steering gear are being properly maintained, are arranged so that the failure of one does not render the other inoperative and that the auxiliary steering gear is capable of being brought speedily into action in an emergency (SOLAS 74/88 reg. II-1/29);

(PR) 5.2.2.62bis examining, where applicable, the alternative design and arrangements for machinery or electrical installations, fire safety, or life-saving appliances and arrangements, in accordance with the test, inspection and maintenance requirements, if any, specified in the approved documentation (SOLAS 00/06 regs. II-1/55, II-2/17 and III/38);
exercising and testing, as far as practicable, any fire detection and fire alarm arrangements in machinery spaces, including enclosed spaces containing incinerators, if applicable, accommodation and service spaces and control spaces (SOLAS 74/00/10 reg. II-2/7 (except 7.5.5, 7.6 and 7.9); FSSC chs. 8 and 9) (SOLAS 74/88 regs. II-2/11, 12, 13, 13-1, 14, 36 and 41);

examining the fire-extinguishing arrangements, examining and testing the fire detection and alarm systems and the sample extraction smoke detection systems, where applicable including fire detection in cargo spaces for general cargo and dangerous goods and testing, as far as practicable and as appropriate, the operation of the means for closing the various openings (SOLAS 74/00 regs. II-2/7.6 and 10.7; FSSC chs. 5, 9 and 10) (SOLAS 74/88 reg. II-2/39);

examining the fire-extinguishing arrangements including fire detection, examining and testing the fire detection and alarm system and the sample extraction smoke detection system, where applicable, in vehicle, special category and ro-ro spaces and testing, as far as practicable and as appropriate, the operation of the means for closing the various openings (SOLAS 74/00 reg. II-2/20 (except 20.5); FSSC chs. 5, 6, 7, 9 and 10) (SOLAS 74/88 regs. II-2/37, 38 and 38-1);

examining, when appropriate, the special arrangements for carrying dangerous goods, including checking the electrical equipment and wiring, fire detection, ventilation, the provision of personnel protection clothing and portable appliances, testing any fire detection and alarm system and any sample extraction smoke detection system and testing, as far as practicable, the water supply, bilge pumping and any water spray system (SOLAS 74/00/08 reg. II-2/19 (except 19.3.8, 19.3.10 and 19.4); FSSC chs. 3, 4, 7, 9 and 10) (SOLAS 74/88 regs. II-2/41 and 54);

examining each survival craft, including its equipment and, when fitted, the on-load release mechanism and hydrostatic lock, and for inflatable liferafts the hydrostatic release unit and float free arrangements, including the date of servicing or replacement. Checking that the hand-flares are not out of date and that the required number of search and rescue locating devices are fitted in liferafts and those liferafts are clearly marked (SOLAS 74/96/00/02/08 regs. III/20, 21, 23, 24 and 26; LSAC sections 2.3 to 2.5, 3.2 and 4.1 to 4.6);

confirming that a decision support system is provided for the Master (SOLAS 74/88 reg. III/29) (SOLAS 06 regs. II-2/21 and 22);

checking that the International Code of Signals and an up-to-date copy of Volume III of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual have been provided. (SOLAS 74/00/02 reg. V/21);

checking the provision, and operation of and that the annual test has been carried out for the automatic identification system, where fitted, and whether the annual test has been carried out and a copy of the test report is on board (SOLAS 74/00/04/10 regs. V/18.9 and 19);
(PR) 5.2.2.114 checking the provision and specification of the pilot ladders and hoists/pilot transfer arrangements (SOLAS 74/00/10 reg. V/4723);

(PR) 5.2.2.116 confirming that no new materials containing asbestos were installed on board (SOLAS 74/00/05/09 reg. II-1/3-5)

7 Amendments to annex 2 – Survey Guidelines under the 1966 Load Line Convention as modified by the 1988 Protocol relating thereto – (L) 1 Guidelines for surveys for the International Load Line Certificate or International Load Line Exemption Certificate:

(LI) 1.1.2.14 examining the special requirements for ships permitted to sail with type "A" or type "B-minus" freeboards (LLC 66/88/03 regs. 26 and 27);

(LA) 1.2.1.11bis confirming, when appropriate, the validity of the International Energy Efficiency Certificate (MARPOL Annex VI, regs. 6.4 and 6.5)

8 Amendments to annex 3 – Survey Guidelines under the MARPOL Convention – (O) 1 Guidelines for Surveys for the International Oil Pollution Prevention Certificate:

(OI) 1.1.2.11 examining, for oil tanker of 5,000 tonnes deadweight and above delivered on or after 1 February 2002, the intact stability (MARPOL 90/04 Annex I, reg. 27);

(OA) 1.2.1.9bis confirming, when appropriate, the validity of the International Energy Efficiency Certificate (MARPOL Annex VI, regs. 6.4 and 6.5);

9 Amendments to annex 3 – Survey Guidelines under the MARPOL Convention – (N) 2 Guidelines for Surveys for the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk:

(NI) 2.1.2.10 confirming if applicable the construction and arrangements of a ship certified to carry individually identified vegetable oils under exemption from the carriage requirements (MARPOL 90/04 Annex II, reg. 4.3 4.1.3).

(NI) 2.1.3.3 confirming that the shipboard marine pollution emergency plan is provided (MARPOL 90/04 Annex II, reg. 17).

(NA) 2.2.1.7bis confirming, when appropriate, the validity of the International Energy Efficiency Certificate (MARPOL Annex VI, regs. 6.4 and 6.5);

10 Amendments to annex 3 – Survey Guidelines under the MARPOL Convention – (S) 3 Guidelines for Surveys for the International Sewage Pollution Prevention Certificate:

(SI) 3.1.1.2 if a sewage treatment plant is fitted, checking that it is type approved by the Administration in accordance with the appropriate resolution (MARPOL Annex IV, regs. 9.1.1 and 9.2.1);

(SI) 3.1.1.3 if a sewage comminuting and disinfecting system is fitted, checking that it is approved by the Administration and that facilities for the temporary storage of sewage are provided (MARPOL Annex IV, reg. 9.1.2);
(SI) 3.1.1.4 if a sewage holding tank is fitted, checking its capacity having regard to the number of persons on board (MARPOL Annex IV, regs. 9.1.3 and 9.2.2);

(SI) 3.1.2.1 checking externally, as applicable, the sewage treatment plant or the sewage comminuting and disinfecting system, and confirming their operation (MARPOL Annex IV, regs. 4.1.1, 9.1.1, 9.1.2 and 9.2.1);

(SI) 3.1.2.2 if a sewage holding tank is fitted, checking that it has been constructed in a satisfactory manner, and checking that the holding tank has a means to indicate visually the amount of its contents (MARPOL Annex IV, regs. 9.1.3 and 9.2.2);

(SR) 3.2.1.4bis confirming, when appropriate, the validity of the International Energy Efficiency Certificate (MARPOL Annex VI, regs. 6.4 and 6.5);

(SR) 3.2.2.2 examining externally the sewage pollution prevention system and confirming, as far as practicable its satisfactory operation (MARPOL Annex IV, reg. 9);

(SR) 3.2.2.4 confirming, for ships where a sewage holding tank is fitted as a sewage system, that an approval for the rate of discharge is available (MARPOL IV, regs. 9.1.3 and 11.1.1)

11 Amendments to annex 3 – Survey Guidelines under the MARPOL Convention – (A)

4 Guidelines for Surveys for the International Air Pollution Prevention Certificate and the NOx Technical Code:

(AI) 4.1.2.2.1.4 For marine diesel engines of an output more than 5,000 kW and a per cylinder displacement at or above 90 litres/cylinder installed on ships constructed between 1 January 1990 and 31 December 1999, check whether:

.1 an approved method exists;

.2 an approved method is not commercially available; or

.3 that an approved method is installed and where this is the case, that there is an approved method file, and apply the verification procedures as given in the approved method file;

.4 or that the engine has been certified, confirming that it operates within the limits set forth for Tier I, Tier II or Tier III (MARPOL Annex VI, reg. 13.7.3);

(AI) 4.1.2.3.1 confirming, if appropriate, that:

.1 satisfactory arrangements are in place for using compliant fuel as required; or
.2 satisfactory installation and operation of the fuel switching arrangements are in place when tanks are provided for different grades of fuel, and that a written procedure showing how the fuel oil changeover is done, is available; or

(AA) 4.2.1.4bis checking, when appropriate, the validity of the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk;

(AA) 4.2.1.4ter checking, when appropriate, the validity of the International Sewage Pollution Prevention Certificate;

(AA) 4.2.1.4quad confirming, when appropriate, the validity of the International Energy Efficiency Certificate (MARPOL Annex VI, regs. 6.4 and 6.5)

(AA) 4.2.2.4.6 for a marine diesel engine with an output of more than 5,000 kW and a per cylinder displacement at or above 90 litres/cylinder installed on ships constructed between 1 January 1990 and 31 December 1999, check whether:

.1 an approved method exists;

.2 an approved method is not commercially available; or

.3 that an approved method is installed and where this is the case, that there is an approved method file, and apply the verification procedures as given in the approved method file;

.4 or that the engine has been certified, confirming that it operates within the limits set forth for Tier I, Tier II or Tier III (MARPOL Annex VI, reg. 13.7.3);

(AR) 4.4.2.2.1 confirming, if necessary by simulated test or equivalent, the satisfactory operation of the following alarms and safety devices.

12 Amendments to annex 4 – Survey Guidelines under mandatory Codes – Guidelines for Surveys for the International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk and the Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk:

(DA) 1.2.1.9bis confirming, when appropriate, the validity of the International Energy Efficiency Certificate (MARPOL Annex VI, regs. 6.4 and 6.5);

(DA) 1.2.1.20 confirming that the Shipboard marine pollution emergency plan is on board (MARPOL 73/78/02 04 Annex II, reg. 46–17);

(DA) 1.2.1.21 confirming that the Cargo Record Book is on board and being correctly used (MARPOL 73/78/91/97/02 04 Annex II, reg. 9 15);

13 Amendments to annex 4 – Survey Guidelines under mandatory Codes – Guidelines for Surveys for the International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk:

(GA) 2.2.1.9bis confirming, when appropriate, the validity of the International Energy Efficiency Certificate (MARPOL Annex VI, regs. 6.4 and 6.5).
14 Amendments to appendix 1 Summary of Amendments to Mandatory Instruments reflected in the Survey Guidelines under the HSSC:

SOLAS 1974 up to and including the 2009—2011 amendments, (resolution MSC.262(86)-317(89))

SOLAS PROT 1988 up to and including the 2009—2010 amendments (resolution MSC.293(86)-309(88))

MARPOL up to and including the 2010—2012 amendments (resolution MEPC.190(60)-217(63))

NO\textsubscript{x} Technical Code up to and including the 2008—2012 amendments (resolution MEPC.177(58)-217(63))
Resolution A.1076(28)
Adopted on 4 December 2013 (Agenda item 10)
AMENDMENTS TO THE SURVEY GUIDELINES UNDER THE HARMONIZED SYSTEM OF SURVEY AND CERTIFICATION (HSSC), 2011