

# GUIDELINES ON TECHNICAL SUPERVISION OF SHIPS IN SERVICE

Saint-Petersburg

2019

Guidelines on Technical Supervision of Ships in Service of Russian Maritime Register of Shipping have been approved in accordance with the established approval procedure. The date of coming into force of the present Guidelines is 1 January 2019.

The present Guidelines have been prepared on the basis of the Rules for the Classification Surveys of Ships in Service, 2018 and the Guidelines on Technical Supervision of Ships in Service, 2018, taking into account the amendments and additions prepared directly before the publication of the Guidelines.

The unified and procedural requirements, interpretations and recommendations of the International Association of Classification Societies (IACS) and relevant resolutions of the International Maritime Organization (IMO) have been taken into consideration in the Guidelines.

The following circular letters, IACS recommendations, IACS requirements and resolutions have been introduced into the Guidelines: 340-22-1048c of 13.10.2017, 340-22-1052c of 24.10.2017 (reg. II-2/15.2.2.6, SOLAS-74/14); 340-22-1062c of 21.11.2017, 340-22-1070c of 13.12.2017, CL 340-22-1072c of 13.12.2017, 340-22-1073c of 13.12.2017, 340-22-1074c of 13.12.2017, 340-22-1084c of 29.12.2017, 340-22-1086c of 29.12.2017, 340-22-1092c of 05.02.2018, 340-22-1095c of 19.02.2018, 340-22-1115c of 27.03.2018, 340-22-1116c of 27.03.2018, 340-22-1141c of 19.06.2018, 340-22-1150c of 05.07.2018, 340-22-1154c of 18.07.2018, 340-22-1158c of 06.08.2018, 340-22-1166c of 24.10. 2018, 340-22-1178c of 13.12.2018;

IMO resolutions: MSC 338(91); MSC.391(95), MSC.392(95), A.1120(30); MEPC.278(70); A.1122(30); IACS UI GF1 (Jan. 2017); IACS UI SC275; IACS UR Z3 (Rev. 7 Jan. 2018), IACS UR Z17 (Rev.13 Jan. 2018); PR21 (Rev.2, Mar 2018);

Instructions of flag state MA: Order No. 191 dated 19 May 2017 of the Ministry of Transport of the Russian Federation; Agreement of the RF MA with the Register dated 01.12.2017.

From the date of entering into force of these Guidelines, the Guidelines on Technical Supervision of Ships in Service, 2018 become null and void.

The Guidelines are intended for surveyors, ship crews and shipowners.

The Annexes to the Guidelines are published separately.

In case of discrepancies between the Russian and English versions, the Russian version shall prevail.

As compared to the previous edition (2018), the present edition (2019) contains the following amendments.

#### PART I. GENERAL PROVISIONS

- 1. Section 1: paras 1.2, 1.6 have been amended.
- 2. Section 2: Chapter 2.1 has been amended.
- **3.** Section 3: paras 3.1.1.3, 3.1.4.1, 3.1.4.2, 3.1.5, 3.1.5.1, 3.1.6 have been amended;

paras 3.1.2.5, 3.1.2.5.1, 3.1.2.5.2, 3.1.2.5.3, 3.1.7.2 have been deleted;

new paras 3.1.1.8, 3.1.5.4, 3.2.4 have been introduced;

new Chapter 3.4 has been introduced.

- **4.** Section 4: paras 4.1.3, 4.2.2, 4.2.3, 4.2.4, 4.3.2, 4.3.3, 4.4.1, 4.4.3, 4.4.4, 4.5.1, 4.5.2, 4.6.1 have been amended;
- paras 4.5.5, 4.5.8 have been deleted, paras 4.5.6, 4.5.7, 4.5.9, 4.5.10 have been renumbered 4.5.5, 4.5.6, 4.5.7, 4.5.8, accordingly;

paras 4.5.6, 4.5.7, 4.5.9 (newly renumbered) have been amended.

- **5.** Section 5: has been amended;
- 6. Section 6: has been renamed;

paras 6.1, 6.2, 6.3, 6.5 – 6.8, 6.9, 6.10 have been amended;

new paras 6.16, 6.16.1 - 6.16.7 have been introduced.

- 7. Section 7: paras 7.1, 7.12, 7.13 have been amended; para 7.15 has been deleted.
- **8.** Editorial amendments have been made.

# PART II. CARRYING OUT CLASSIFICATION SURVEYS OF SHIPS

- 1. Section 1: paras 1.2, 1.7 have been amended.
- **2.** Section 2: paras 2.2.2.1, 2.2.4.2.3.1.6, 2.4.5.4.1.9, 2.4.5.5.2.3, 2.4.5.8.2.1, 2.5.5.16 have been amended;

new para 2.2.4.2.3.1.7 has been introduced (the existing para 2.2.4.2.3.1.7 has been renumbered 2.2.4.2.3.1.8).

- **3.** Section 3: paras 3.2.4, 3.3.3.5, 3.3.3.6, 3.4.1, 3.4.2, 3.4.3, 3.4.4, 3.4.6 have been amended.
- **4.** Section 4: paras 4.1.1.1, 4.1.2.1, 4.1.3.1.6, 4.1.6.3.4, 4.2.1.1, 4.2.2.1, 4.2.3.1, 4.2.4.1, 4.2.4.3, 4.2.5.1, 4.2.7.7, 4.2.7.8, 4.2.7.9, 4.2.8.7, 4.2.9, 4.5.2, 4.6.7, 4.6.12, 4.7.5, 4.7.12, 4.9.2, 4.9.3, 4.9.4, 4.9.5, 4.9.8, 4.9.9 have been amended;
- para 4.2.5.3 has been deleted; paras 4.2.5.4 4.2.5.6 have been renumbered 4.2.5.3 4.2.5.5 accordingly;

new paras 4.6.5.9, 4.6.12, 4.9.9 have been introduced.

- **5.** Appendix to 4.9 has been renamed. A new column has been introduced to the table of the Appendix.
- **6.** Section 5: paras 5.1.3.1, 5.1.3.3, 5.1.4, 5.1.5.2, 5.1.5.3, 5.1.5.4, 5.1.5.6, 5.1.5.7, 5.1.5.8, 5.2.1.2, 5.2.2.3, 5.2.2.4, 5.2.2.5, 5.2.4.2, 5.2.4.8, 5.2.3.1, 5.2.3.6 5.2.3.8, 5.2.5.3.4, 5.2.6.1, 5.3.3.4, 5.4.1, 5.4.1.1, 5.4.3 have been amended;
- paras 5.1.3.4, 5.1.6.8, 5.4.1.2, 5.4.1.4, 5.4.1.6 have been deleted, paras 5.4.1.3 and 5.4.1.5 have been renumbered 5.4.1.2 and 5.4.1.3 accordingly; para 5.4.1.3 (existing 5.4.1.5) has been amended;

new paras 5.2.1.5, 5.2.3.14, 5.3.1.5 have been introduced.

7. Section 6: paras 6.5.2, 6.6.1.4, 6.6.2.6, 6.8.1 have been amended.

Para 6.1.3 has been deleted.

**8.** Section 7: paras 7.2.1, 7.3.3, 7.3.4, 7.4.3, 7.5.1, 7.5.2, 7.5.4, 7.5.7, 7.5.8, 7.5.10, 7.6.4, 7.7.2.2 have been amended;

para 7.5.4 has been deleted, the subsequent paras have been renumbered accordingly; paras 7.5.6, 7.5.7, 7.5.9 (new numbers) have been amended.

new para 7.8.3 has been introduced.

- **9.** Section 8: para 8.1.1, Table 8.2.5 and paras 8.4.1, 8.4.3 have been amended.
- **10.** Section 9: paras 9.1.1, 9.1.2, 9.1.3, 9.1.4, 9.1.5, 9.1.8.4, 9.1.12, 9.2.6 have been amended; para 9.1.9.1 has been deleted;

paras 9.1.9.2 - 9.1.9.8 have been renumbered 9.1.9.1 - 9.1.9.7 accordingly;

new para 9.1.9.6 has been introduced.

- 11. Section 10: para 10.3.1.1 has been amended.
- 12. Editorial amendments have been made.

# PART III. SURVEY OF SHIPS IN COMPLIANCE WITH INTERNATIONAL CONVENTIONS, CODES, RESOLUTIONS AND RULES FOR THE EQUIPMENT OF SEA-GOING SHIPS

**1.** Section 1: paras 1.1, 1.2, 1.3, 1.6, 1.7.1, 1.7.7, 1.7.7.2, 1.7.10, 1.7.11, 1.8.1 – 1.8.11, 1.8.13, 1.8.19 have been amended;

new paras 1.7.7 – 1.7.9, 1.8.20 and 1.8.21 have been introduced;

paras 1.7.7 – 1.7.11 have been renumbered.

- **2.** Section 2: paras 2.1.1, 2.1.2 (except for 2.1.2.5, 2.1.2.6), 2.1.3, 2.1.4, 2.1.8, 2.1.9, 2.2.1, 2.2.2, 2.2.3, 2.2.5 (except for 2.2.5.5), 2.2.6, 2.3.1 (except for 2.3.1.4), 2.5.1 have been amended;
- paras 2.1.2.5, 2.1.2.6, 2.1.5.1, 2.1.5.3, 2.1.6.2.2.4, 2.1.6.3.1, 2.1.6.4, 2.1.6.5.1, 2.1.6.9, 2.1.7.2.1, 2.1.11.4, 2.2.4.1.2, 2.2.4.2, 2.2.4.2.2, 2.2.5.5.1, 2.2.5.5.2, 2.3.1.4 have been amended;

definition "Special purpose ship" (para 2.1.6.3.1) has been specified, footnote 2 thereto has been deleted;

new paras 2.2.5.5.3 - 2.2.5.5.11 have been introduced;

new Chapters 2.6, 2.7 have been introduced.

- 3. Section 3: para 3.1.1 has been amended, new Chapter 3.2 has been introduced.
- **4.** Section 4: paras 4.1.1.1.5, 4.1.1.2.7, 4.1.1.2.10, 4.1.1.2.17, 4.1.1.2.20, 4.1.1.2.21, 4.1.2.2.7,
- 4.1.2.2.6, 4.1.3.3.3, 4.1.3.3.4, 4.1.4.2.8.3, 4.1.4.2.8.4, 4.1.4.3.1, 4.1.5, 4.1.6.3.2, 4.1.6.3.7, 4.1.6.3.8,
- 4.2.1.1, 4.2.1.2, 4.2.2.2, 4.2.2.3.1.1, 4.2.2.4.1, 4.2.2.5.1, 4.2.2.5.2, 4.2.2.6, 4.2.3, 4.2.3.3, 4.2.3.3.1.1, 4.2.3.3.1.2, 4.2.3.3.3, 4.2.3.3.5, 4.2.3.3.6, 4.2.3.3.7, 4.2.4.4.3, 4.3.1.2, 4.3.2.1, 4.3.2.2, 4.3.2.3, 4.3.2.4, 4.3.2.5 have been amended;

new para 4.2.3.3.8 has been introduced;

para 4.2.2.5.1 has been renumbered 4.2.2.5.2; para 4.2.2.5.2 (existing 4.2.2.5.1) has been amended; new paras 4.2.2.5.1, 4.2.3.3.7, 4.2.3.3.8 have been introduced;

Note to new para 4.3.3.5.2.1 has been amended;

paras 4.3.3 - 4.3.3.10 and 4.3.4 - 4.3.4.9 have been renumbered 4.3.4 - 4.3.4.10 and 4.3.5 - 4.3.5.9 accordingly;

paras 4.2.2.6.1 - 4.2.2.6.6 have been deleted.

5. Editorial amendments have been made.

Based on CL No. 342-22-1184c of 22.01.2019, the Guidelines have been amended as follows: Part II: in para 8.6.13; Part III: in paras 4.1.1.1.8, 4.2.2.1.5, 4.2.2.2.1, 4.2.2.5.2.1 the requirements have been specified.

# PART I. GENERAL PROVISIONS

## 1 APPLICATION

- **1.1** Guidelines on Technical Supervision of Ships in Service<sup>1</sup> are applied to the items of technical supervision of Nomenclature of the items of the Russian Maritime Register of Shipping<sup>2</sup> supervision and have been developed to elaborate Rules for the Classification Surveys of Ships in Service<sup>3</sup>.
- 1.2 The Guidelines set down the procedures and methods of surveying ships and their items for the purpose of assigning, confirmation and renewal of class of ships in service in accordance with Rules for the Classification and Construction of Sea-Going Ships<sup>4</sup> and for confirming the ship compliance with the Rules requirements and the provisions of the Rules for the Classification, Construction and Equipment of Mobile Offshore Drilling Units and Fixed Offshore Platforms<sup>5</sup>. The Guidelines also specify the requirements for surveying the ships in service to confirm their compliance with the International Conventions, Codes of the International Maritime Organization<sup>6</sup>, other international organizations and National Regulations of the Russian Federation and Governments of other Flag States.
- **1.3** The Guidelines is the regulating document and is intended for the Register surveyors, ship crews and shipowners.

The provisions of Part II "Carrying out Classification Survey of Ships" are mandatory for surveyors and may be used by ship crews and shipowners when preparing the ships and their items for surveys, tests etc.

The provisions of Part III "Surveys of Ships in Compliance with International Conventions, Codes and Resolutions" are mandatory for surveyors, ship crew and shipowners.

- **1.4** The types and scope of, as well as intervals between surveys of ship items subject to supervision for the purpose of verifying the compliance of ships with the Rules and other regulating documents of the Register are specified in the relevant sections of the Rules.
- **1.5** Directions on technical supervision of ships in service, under repair or conversion are given in Methodological recommendations on Repair of Sea-Going Ships<sup>7</sup>.
- 1.6 The directions concerning surveys and tests to be carried out during technical supervision of materials and products used for repair and replacement, of welding and heat treatment procedures shall be found in the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships, Guidelines on Technical Supervision of Ships under Construction, Guidelines on Technical Supervision During Construction of Mobile Offshore Drilling Units and Fixed Offshore Platforms and Manufacture of Materials and Products, relevant parts of the Rules for Construction".
- 1.7 The Guidelines include Annexes issued as a separate book and intended for surveyors, ship crew and shipowners as the guidelines on carrying out surveys and tests of particular items of technical supervision, issue of reports, instructions on determining technical condition, performing thickness, clearance measurements etc.

<sup>&</sup>lt;sup>1</sup>Hereinafter referred to as "the Guidelines".

<sup>&</sup>lt;sup>2</sup>Hereinafter referred to as "the Register or RS".

<sup>&</sup>lt;sup>3</sup>Hereinafter referred to as "the Rules".

<sup>&</sup>lt;sup>4</sup>Hereinafter referred to as "the Rules for Construction".

<sup>&</sup>lt;sup>5</sup>Hereinafter referred to as "the MODU/FOP Rules"

<sup>&</sup>lt;sup>6</sup>Hereinafter referred to as "IMO".

<sup>&</sup>lt;sup>7</sup>Hereinafter referred to as "the MR on Repair"

## **2 DEFINITIONS AND EXPLANATIONS**

**2.1** Definitions and explanations pertinent to the general terminology of the Rules and Guidelines shall be found in Chapter 1.1, Part 1 "Classification" of the Rules and in Section 2, Part 1 "General Provisions" of the Rules.

The definitions and explanations pertinent to carrying out surveys upon authorization of the Maritime Administrations shall be found in the website of the Ships in Service Division in the Section "Additional MA requirements".

Instrument calibration means a series of actions performed to determine the actual values of metrological characteristics of measuring instruments.

Instrument verification (hereinafter, the verification) means a series of actions performed to verify the compliance of the instruments with the metrological requirements.

Competent organization is an organization recognized as having adequate knowledge and experience in the particular area, in accordance with 1.1, Part I "General Regulations for Technical Supervision" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships.

Working load when testing lifeboat launching appliances is the total mass of a lifeboat with the full complement of persons for which it is designed and with standard outfit.

Repair is a set of measures relating recovery and/or maintenance of compliance to the applied Register Rules of the ship's items subject to the Register technical supervision.

A ship under construction is a ship during a period from the date of laying the keel or similar stage of construction till the date of issuing the RS basic documents for the ship.

"Thesis" System is an information system for integrated automation of the RS activity

Type production process is a production process intended for a specific field of production and conditions of application without any reference to a particular ship or item of supervision.

# 3 OUTLINES OF THE REGISTER ACTIVITIES PERTINENT TO THE TECHNICAL SUPERVISION OF SHIPS IN SERVICE

The Register activities pertinent to the technical supervision of ships in service include two basic parts: classification surveys of civil ships;

technical supervision of ships for compliance with the requirements of the International Conventions, Agreements, Codes of the IMO and other international organizations on behalf of the Government of the Russian Federation and Governments of other Flag States.

# 3.1 CLASSIFICATION SURVEYS OF SHIPS IN SERVICE

# 3.1.1 General provisions.

- **3.1.1.1** The classification activities of the Register are carried out in compliance with the General Regulations for the Classification and Other Activity.
  - 3.1.1.2 Classification surveys of ships in service are stipulated by the Rules and the present Guidelines.

- **3.1.1.3** Technical supervision of items of manned submersibles and diving systems in service shall be carried out in accordance with the relevant requirements of the Rules for the Classification and Construction of Manned Submersibles and Ship's Diving Systems and the Guidance of Survey of Manned Submersibles and Ship's Diving Systems under construction and in service.
- **3.1.1.4** Technical supervision of the technological and special gears of ships (fishing vessels, fish processing ships, research ships, cable layers etc.) shall be carried out only in compliance with the requirements specified in Rules for Construction (fire protection, subdivision, stability etc.).
- **3.1.1.5** The supervision activity of the Register does not substitute for that of the technical control units of Shipowners, shipyards, specialized bodies serving the ships in service (survey of inflatable survival craft, checking of measuring equipment, cylinders etc.).
- **3.1.1.6** The interpretation of the Rules and other regulating documents of the Register is the Register terms of reference.
- **3.1.1.7** The Register may expertise as well as carry out an examinations of technical issues, which are within the scope of its activities.
- **3.1.1.8** Maintenance of a ship's compliance with the relevant requirements of the RS rules shall be the shipowner's responsibility.

# 3.1.2 Survey includes the following:

consideration of ship's documentation – see Section 6, Part I "General Provisions" of the Rules;

checking of the availability on board of all necessary certificates of compliance, service manuals of the items of Nomenclature of items of the Register supervision, information for the ship's officers, log books and other essential documents;

surveys of ship structures, machinery and equipment, other items subject to the Register supervision to ascertain whether they comply with the regulating documents of the Register and whether their serviceability is in accordance with their purpose.

**3.1.2.1** The Surveyor shall carry out a survey in accordance with the request issued and accepted according to the established procedure which shall specify the type and scope of survey.

Irrespective of the type of survey the Surveyor shall pre-ascertain whether RS Circular Letters as to the ship type and survey type in question are available and assess specific defects of similar ship types. Prior to the survey the Surveyor shall familiarize himself with the ship's List of Survey's Status (Form 6.3.51-1), Ship's File in case the ship is registered with this Branch Office, with the Register documentation available onboard, as well as with reports on previous surveys and ship documentation containing information about the wear, damage and defects found during the service, repairs and replacements carried out. Moreover, it is necessary to check whether any outstanding recommendations are available (see Annex 17) and correctness of the prescribed survey terms in the Ship's Survey Status during the previous surveys regardless the type and scope of the current survey. Prior to the survey, the Surveyor determines those documents which shall be issued upon the survey results and the way of their delivery. Matters related to payment for the performed work shall be decided by the assigned personnel of the Branch Office when reviewing the request.

- **3.1.2.2** Among the shipowner's responsibilities is keeping to the dates for periodical surveys and other surveys, as prescribed by the Register, relevant preparation of ships for surveys, as well as notifying the Register of any deficiencies, damage, emergencies or repairs to items of the Register technical supervision of the Nomenclature that have taken place during the period between the surveys.
- **3.1.2.3** The Surveyor shall establish the necessary scope of supervision in order to verify compliance with the Rules and to assess technical condition of the ship, taking into consideration the ship's age and the results of the previous survey.
- **3.1.2.4** Depending on the survey type, the scope of examinations, inspections, tests and measurements, as well as their procedures and dates, may be modified, where necessary. Ship modifications may be based on the manufacturer's data concerning the service life, intervals between examinations, inspections, tests and measurements, the technical condition data according to the ship documents, as well as on data submitted by competent and research bodies, and experience in supervision, as accumulated by the Register Branch Offices.
- **3.1.3** At the shipowner's request the Register may establish a continuous survey system for the ship (hull, arrangements, machinery, electrical equipment, refrigerating plant etc.), which consists in the

division of survey scope corresponding to that of a special class renewal survey into separate surveys; moreover, the survey shall be completed within the period for which the class has been assigned or renewed (see Annex 2).

When readings of the integral systems or portable equip-ment for diagnostics and non-destructive testing are used, a survey without dismantling shall be carried out (see Annex 3).

- **3.1.4** The Register technical supervision of mandatory periodical examinations of the equipment and outfit to be carried out by the recognized competent bodies is reduced to monitoring the timeliness of such examinations and observance of the service lives during the periodical surveys of the ship.
- **3.1.4.1** Submittal of the items to mandatory periodical examinations/tests within the time stipulated by the current provisions, and replacement of the items in the terms specified by international conventions and/or the Register rules, as well as replacement of the items, the operation of which is prohibited beyond the service life specified by the Manufacturer, are the responsibilities of the shipowner.

## **3.1.4.2** This refers to:

periodical surveys of inflatable liferafts, their containers, inflated rescue boats and rescue boats, which are combination of rigid and inflated construction, release units, marine evacuation systems, automatically gas-filled inflatable lifejackets, immersion suits and thermal protective aids;

periodical surveys and testing of thrusters;

hydraulic tests and internal examinations and weighing of carbon dioxide cylinders belonging to fire-extinguishing systems;

periodical surveys and tests by a competent person authorized by the shipowner of pressure vessels and heat exchangers not subject to the Register survey;

calibration of navigational instruments by the recognized competent body;

check of emergency radio beacons;

calibration of measuring equipment by the recognized competent body;

service lives of rockets, hand flares, smoke signals, self-igniting lights and electric batteries forming a part of the outfit of lifeboats, rescue boats and liferafts, lifebuoys, immersion suits and lifejackets, ship distress signals, line-throwing appliances;

service life of fireextinguishing medium in fire-extinguishing systems and fire extinguishers;

checking thermal protective aids, immersion suits and outfit of fire-stations, fire alarm and gas detectors; storage lives of food rations, drinking water and medical boat box forming a part of the outfit of lifeboats and liferafts;

checking by a recognized competent body of the self-contained breathing apparatuses;

internal surveys and hydraulic tests as well as air quality monitoring in cylinders of lifeboats with the self-contained air-supply system;

periodic maintenance and repairs to lifeboats, release gears and on-load release gears;

correction of nautical charts and nautical publications (see Annex 23);

checking by a recognized competent body the proper operation of equipment for the prevention of pollution from ships;

replacement of falls used in launching appliances, when necessary during the last 5 years;

thorough examinations, operational annual and five year interval tests of launching appliances, release mechanisms of life-saving appliances, davit-launched liferaft automatic release hooks;

tests of embarkation/disembarkation means, including replacement of wire ropes used for them, during the last 5 years.

The above mentioned list of items is not comprehensive.

**3.1.4.3** Requirements for the equipment or outfit specified in 3.1.4.2 to be inspected or replaced by recognized competent bodies shall not be included in reports on survey except where the inspection or replacement dates are overdue.

# 3.1.5 Technical supervision of all types of repair, conversion, modernization of the RS-classed ship.

**3.1.5.1** Technical supervision of ships' repair, conversion or modernization shall be carried out in accordance with the provisions of the Rules, and Section 3 Part II "Carrying out Classification Surveys of Ships" of the Guidelines.

- **3.1.5.2** Technical supervision of ships under repair during the voyage shall be carried out in accordance with the provisions of Section 3, Part II "Carrying out Classification Surveys of Ships".
- **3.1.5.3** Technical supervision of ships under inter-voyage repairs and/or emergency repairs shall be carried out based on the Shipowner requests and shall be provided depending on the circumstances in each particular case.
- **3.1.5.4** Replacement/installation/exclusion of the RS items of technical supervision shall be carried out under the RS technical supervision according to the documents approved by the Register. Services under the works mentioned above shall be rendered by the Register according to the request by the shipowner or its duly authorized representative
- **3.1.6** Extension of the terms of surveys of ships may be granted by RS at Shipowner's request only in exclusive cases and upon agreement with the Register Head Office (RHO) for ships with a gross tonnage above 100; with the RS Branch Offices for in-service supervision for ships with the gross tonnage 100 and below. The terms of survey of the ship with the suspended class may not be extended until the reinstatement of the ship class.
- **3.1.7** Technical supervision and classification of ships of inland navigation shall be carried out by the RF River Register. When these ships come under the Register supervision, a corresponding class of the Register shall be assigned to them.
- **3.1.7.1** Technical supervision of inland navigation ships engaged on voyages on the Danube is carried out in accordance with the Rules for the Classification and Construction of Inland Navigation Ships (for European Inland Waterways), Guidelines on Survey of Inland Navigation Ships in Service (for European Inland Waterways), and for those operating on Amu Darya, in accordance with the Rules of the RF River Register taking into consideration the Register requirements for inland navigation ships engaged on voyages on that river.

Certain provisions of the above documents may be applied to sea-going ships constantly navigating in regions covered by the directions of inland navigation.

**3.1.8** For the purpose of preventing or excluding a possibility of a ship operation not in full compliance with the applicable requirements of the relevant RS Rules, International conventions and Agreements, as well as for the purpose of assessment of the actual technical condition of the ship in between the prescribed periodical surveys (special, annual etc.), ships or separate items of supervision may be surveyed on the Register initiative<sup>1</sup>.

The initiative surveys are performed in the following cases:

identification by the PSC, Flag State MA, underwriters or shipowner of defects, damages or deficiencies of the items of the Register supervision;

identification as a result of assessment of ship type technical condition of model defects affecting the ship safe operation, prevention of pollution of the sea;

detention of a ship by the PCS, Flag State MA.

Additional provisions in respect to the performance of initiative surveys are laid down in Annex 27.

**3.1.9** In case an RS-classed ship cannot be surveyed in foreign ports due to some reasons, authorization to perform survey shall be issued to another classification society<sup>2</sup> having a current mutual substitution agreement with the Register.

The procedure of issuing authorization to ACS is specified in 4.4.

**3.1.10** Where the ship's officers, shipowner or shipyard do not agree with the decision of the Surveyor who carried out the survey, this decision may be appealed at the RS Branch Office for in-service supervision.

The decisions of the Branch Office may be appealed at RHO, whose decision shall be final.

<sup>&</sup>lt;sup>1</sup>Hereinafter referred to as "the initiative surveys".

<sup>&</sup>lt;sup>2</sup>Hereinafter referred to as "ACS".

# 3.2 TECHNICAL SUPERVISION OF SHIPS FOR COMPLIANCE WITH INTERNATIONAL CONVENTIONS, AGREEMENTS AND CODES OF THE IMO

- **3.2.1** The Register activities pertinent to technical supervision of ships in service for compliance with International Conventions, Agreements and Codes of the IMO are regulated by the scope of surveys necessary to confirm the compliance of ships with International Conventions, Agreements and IMO Codes within the authorization of the Flag State Government and additional guidelines of the Flag State MA.
- **3.2.2** Principles of the Register activities pertinent to the technical supervision of ships for compliance with International Conventions, Agreements and Codes of the IMO are similar to those specified in 3.1 as regards the Register activities pertinent to the classification surveys of ships.

Carrying out of surveys under the authorization of the Flag State Government imposes additional liabilities on the Register for the completeness and quality of such surveys and requests that all the Surveyors strictly observed all the requirements within the received authorization.

Any deviations from the dates and/or scope of surveys shall be agreed with the Flag State MA in advance.

- **3.2.3** Detailed directions on carrying out the surveys to issue, confirm and renew the certificates and other documents specified in the current International Conventions, Agreements and Codes of the IMO are set forth in Part III "Survey of Ships in Compliance with International Conventions, Codes, Resolutions and Rules for the Equipment of Sea-Going Ships.
- **3.2.4** Maintenance of a ship's compliance with the relevant requirements of international conventions shall be shipowner's responsibility (for example, reg. I/11(a) SOLAS-74, Annex I/ 6.4.1 to MARPOL 73/78 etc.).

# 3.3 SURVEY OF SHIPS IN CONNECTION WITH PORT STATE CONTROL DETENTIONS

**3.3.1** The scope and procedure of surveys for ships in case of ship's detentions are determined by the directions of the Flag State MA. In case of absence of concrete instructions from the Flag State MA, the applicable provisions of "Procedure for Responding to Port State Control", shall be followed. These occasional surveys are obligatory and are normally carried out by the request of the Shipowner in the port where the ship was detained. If no request is made, the Register reserves the right to attend on board the ship on the initiative of the RS Branch Office carrying out the survey in compliance with 3.1.8.

If the ship leaves the port of detention without being submitted to the Register surveys the RS Branch Office performing the survey shall promtly contact the Shipowner and agree upon the time and place of the prescribed survey in accordance with the directions of the ship's Flag State MA and/or provisions of Procedure for Responding to Port State Control.

#### 3.4 REQUIREMENTS FOR PHOTOGRAPHING OF THE RS ITEMS OF TECHNICAL SUPERVISION

**3.4.1** To confirm the survey performance by RS, the substantiation of the imposed RS requirements, confirmation of the satisfactory technical condition of the RS items of technical supervision specified in the acts, reports and check-lists and clear demonstration of their condition during the survey or repair processes, the RS surveyor shall carry out mandatory photographing in proper extent with sending the original photos to the Ship's File. In case the photographing of the items of technical supervision is prohibited by port authorities or by the state security agencies, it shall be indicated by the surveyor in the survey records together with the official confirmation by the Master or the ship's agent.

Processing, identification and sending of photographs shall be carried out in accordance with the procedure, established by RS.

Photos shall be as much informative as possible. For individual items of technical supervision the photos shall contain a reference to the ship, where appropriate: ship's side, located along the ship (for example, ship's name, available ship's marking as per the frames, lifeboat marking, etc.). The photos shall clearly demonstrate the defects mentioned in the requirements or the absence of such. General shots of the ship which do not give an idea of the condition of the items of technical supervision mentioned in comments to the photos shall be minimized. While marking (e.g. containers for liferafts, hydrostatic release units of liferafts, pyrotechnic signal means, etc.), posters or instructions are photographed the snapshot shall be done with sufficient resolution and so, that the marking and text of the instructions are readable. Photo-reports on repairs shall contain snapshots of item defects prior to repairs and after when the defects have been eliminated. Photo-reports for the items of technical supervision, for which the PSC deficiencies have been issued, shall contain snapshots highlighting the key point of the PSC deficiencies, as well as the snapshots after eliminating the deficiencies.

The photos shall mandatorily display the snapshot date.

- **3.4.2** Mandatory, the scope of photo-reports shall include the following photos (the minimum required volume listed below shall not restrict the surveyor, all the photos shall be submitted that are considered necessary to be submitted by the surveyor):
  - **3.4.2.1** During the survey of the underwater part of the ship in the dock, on a slipway or ashore:
  - .1 general view of the ship after lifting and cleaning of the ship's hull, prior to its launching;
  - .2 condition of outer shell plating, welding seams, sea chest inlet screens;
  - .3 process of residual thickness measurement;
  - .4 replaceable segments of hull structures (during and after replacement);
- .5 sterntube arrangement in the dismounted and then in the assembled condition, where dismounting is required), propeller shafts;
- .6 propellers (for solid propellers after compaction, for controllable pitch propellers (CPP) and detachable blade propeller after dismounting);
  - .7 condition of propeller journals and cones, as well as propeller blades;"
- .8 steering gear in the dismounted condition (when dismounting is required), including rudder stocks, rudder blades and steering and fixed nozzles, pintles and bearings, ready-fitted steering gear; 02/2018
- .9 anchor chains paid out of chain lockers, laid out and stretched for flaw detection (during the special survey).
- **3.4.2.2** During the surveys in the extent of annual, intermediate (periodical) and special (renewal) survey depending on the extent and the applicable requirements:
- .1 general view of the ship from the bow and stern ends with the visible ship's name, load line marks, draft scales;
- .2 superstructures, superstructure and wheelhouse outer bulkheads, weather deck plating, cargo holds and tanks, hatch covers of cargo spaces;
- .3 condition of hull structures (including solid protecting plating, where available) and ship's systems in the cargo, ballast spaces and fuel tanks, other hull compartments subject to survey;
  - .4 process of residual thickness measurement;
  - .5 replaceable segments of hull structures (during and after replacement).
  - .6 sliding doors (where available) in the closed and open condition;
- .7 personal and collective life-saving appliances and survival craft installed in their prescribed places, securing equipment, release it from a ship, float-free operation (liferafts), means of embarkation in to life-saving appliances, strength and tightness tests of life boats;
- .8 testing of launching appliances and release arrangements of life-saving appliances, winch brakes of launching appliances and release arrangements by test load, launching of life boats and rescue boats to water and testing of hook release gears without load and on-load (if applicable), testing of controlled launching and lifting of life boats to be launched by free-falling, release simulation, machinery maintenance;
- .9 illumination of outboard spaces, including that of emergency power source, at the embarkation area of life-saving appliances;

- .10 general view of lifting appliances (during the complete annual surveys);
- .11 testing of lifting appliances by test load, components of lifting appliances (during the complete 5-years surveys);
  - .12 anchor arrangement including the anchors and length of anchor chains if available;"
  - .13 steering gear;
  - .14 towing and mooring equipment;
  - .15 signal masts;
- .16 condition of main, auxiliary and emergency internal combustion engines, gas turbines, compressors, air receivers, fire pumps. Internal combustion engines in dismounted condition and ready-fitted:
  - .17 stations of fixed fire-extinguishing systems, check of water fire main system in operation;
  - .18 main switchboard and emergency switchboard;
- .19 radio-and radio and navigational equipment, emergency radio buoy and radar transponders installed in the standard positions;
  - .20 navigation lights.
  - .21 garbage receptacles.
  - **3.4.2.3** During the survey of a ship prior to passage by towing in converted condition:
  - .1 general view of the ship from the bow and stern ends with the visible ship's name;
  - .2 draft condition of the ship in ballast as per load line and displacement marks;
- .3 ship conversion components closing openings in the hull, superstructure and wheel houses of the ship (watertight doors, cargo and other hatches, manholes, portholes, fans, air and sounding pipes);
  - .4 stopping by cranking of propeller shaft, rudder blade, steering nozzle;
  - .5 navigation lights necessary for the passage;
  - .6 additional storage batteries for supplying navigation lights necessary for the passage;
  - .7 means of access to the ship from board of lifeboat or towing ship;
  - .8 fastening of movable structures and solid item for the period of passage;
  - .9 watertightness of the deck hawse pipes of chain lockers shall be ensured.
- **3.4.3** The RS Branch Offices shall organize possible storage of all the photos of the items of technical supervision that have been surveyed, taken by surveyors during the period of minimum ten (10) years on its public server disk. In this case, the surveyor shall be notified about required copies of all the photos of the survey performed on a public server disk, regardless of the minimum required scope of photo-report. The catalogues with photos on a server disk shall be clearly marked to identify a ship (ship's name, RS No. and IMO No.), the survey of which have been performed as well as of the type and date of the survey.
- **3.4.4** Quality, information capability, availability of snapshots' dates and compliance of the date and the scope of the photo-report with the date and the scope of the survey, submission of the photo-report to the Ship's File are the responsibilities of the surveyor who carried out the survey and the Head of the Branch Office, which carried out the survey. When defining quantity of the photos the surveyor shall use its professional judgement with regard to the general technical condition of the inspected items, availability of suspect areas, number of the items, which shall be repaired etc. In this regard, the surveyor shall be guided by the following principles:
- .1 for each of the above listed items/processes, except for survey of hull structures, anchor chain, some devices, there shall be at least one (1) photo;
- .2 for hull structures inside of a ship's spaces, which are subject to survey, there shall be at least four (4) representative photos per each space;
- .3 for external shell plating of hull, weather/open decks at least six (6) representative photos per each board, distributed evenly lengthwise/breadthwise the ship;
- .4 for anchor chains, rolled out from chain lockers at special surveys at least three (3) photos per every chain. For annual survey at least one (1) photo per chain.
- .5 for deckhouses/superstructures, coamings of cargo hold hatches and hatch covers there shall be at least two (2) photos etc.
  - .6 it is permitted to have one informative photo for several items of technical supervision;

- .7 for ships less than 500 gross tonnage the minimum amount of photos, specified above, may be decreased, except for the cases, when there shall be at least one (1) photo;
- **.8** the RS surveyor can increase the number of photos regardless of the condition of items of technical supervision;
- .9 when repairing / replacing parts of the cargo handling gear, photo reports shall contain both photos of the item with defects (before repair) and photos after their elimination (after repair / replacement). To demonstrate the satisfactory technical condition of the elements of the cargo-handling gear, it is recommended to include photos of the parts / structures in the photo reports (on a selective basis), considering the experience of identifying defects typical for main parts, machinery, replaceable and removable parts of this type of cargo handling gear (also refer to the approximate list of items, given in the Appendix to the Rules on Cargo Handling Gear). To confirm the fact of the survey it is also recommended to include in the photo report photos showing the marking and stamps of removable and replaceable parts of the cargo handling gear, as well as the measure of the thickness of metal structures and / or wear measurements of parts carried out in the presence of the RS surveyor;
- .10 photographing of the items of technical supervision shall not be done in on a priority manner instead of carrying out of examinations, checks and tests of the items of technical supervision, which are required by the Rules and the Guidelines of the Register. Photos shall be an additional confirmation of assessment of the technical condition, stated in the documents of the Register.

# 4 MAIN PRINCIPLES OF THE REGISTER ACTIVITY ON TECHICAL SUPERVISION OF SHIPS IN SERVICE

#### 4.1 GENERAL

- **4.1.1** Efficiency of ship surveys to be carried out in the shortest possible time depends on mutual participation of parties (shipowner and the Register) in preparation and carrying out of these surveys.
- **4.1.2** To ensure continuous monitoring a computer-based registration of Class Status of all RS-classed ships and dates of their survey is organized at the Register.

The Register notifies the shipowners of forthcoming and overdue surveys of ships or parts thereof in compliance with the Rules, and also informs the shipowners of suspension or withdrawal of class in case of failure to submit the ships for surveys.

**4.1.3** Any ship survey shall be carried out based on a request submitted to the relevant Branch Office of the Register.

The request shall contain, as a minimum, the following information:

- .1 port of call, name of shipyard (for ships under repair, conversion, modernization etc.);
- .2 name of agency's/ contractor's company (for ships under repair, conversion, modernization etc.), together with telephone, fax and/or telex, e-mail address;
- .3 dates of ship arrival/departure, and dates of commencement/completion of the ship repair/conversion/ modernization (as applicable);
- .4 type of survey, scope of repair/conversion/modernization, installation/replacing of the items of RS technical supervision etc. (as applicable);
  - .5 list of the Register documentation, which needs approval/issue/renewal/confirmation/extension;
- .6 reference to the fact that the applicant is familiarized and agrees with the General Conditions for Rendering Services (carrying out of work) by RS.

To ensure prompt attention to the receipt of a request, the shipowner shall send it to the RS Branch Office, within which area of activity the ship will be submitted to survey in question (the information is posted on the RS web-site: www.rs-class.org). Copy of the request shall be sent to the RS Branch Office for in-service supervision in order to inform them of the forthcoming survey. Where it is difficult to define the RS Branch Office in charge for the area of submission, the shipowner/operator of the ship shall send the request to the RS Branch Office, where the ship has been registered. In its turn, the RS Branch Office for in-service supervision (where ships is registered) shall forward the request to the Register Branch Office in charge of the area of the planned ship submission.

When the request requirements may not by met by the RS Branch Office autonomously, the Head of the Branch Office shall immediately send the written substantiation of reasons preventing the compliance with the request requirements in the activity area of the particular RS Branch Office and the written consent of the Head of other RS Branch Office who has the resources to meet the requirements of the particular request to the Director General for approval. A copy of the request shall be sent to RHO. Upon agreement with the Director General, the request shall be performed by the relevant RS Branch Office.

Requests for survey shall be submitted in 24 h, as a minimum, if the ship is within reach of the Branch Office/ Representation or its survey station, while if the ship is beyond reach of the Branch Office/ Representation or its survey station, the request shall be submitted in a period sufficient for the Register representative to get to the ship.

Shipowner shall notify the Register in advance of the planned repair, conversion or modernization to ensure appropriate supervision by the Register. The same refers to ship submission for survey planned by the shipowner in the area beyond reach of the Register representatives.

**4.1.4** When preparing for survey the organizations and/or persons engaged in ship operation, repair or conversion are responsible for arrangement of necessary conditions for surveyors to perform surveys

safely, submittal of needed documents, and rendering assistance to surveyors in compliance with provisions of Section 4, Part I "General Provisions" of the Rules.

When necessary, provision of transport (aircraft transport, land transport or at anchorage — of sea transport), special clothing and measuring equipment is the responsibility of a party, which submitted the ship for survey.

# 4.2 FULFILLING REQUESTS FOR SURVEY OF RS-REGISTERED SHIPS IN SERVICE AND INCLUDING THOSE UNDER REPAIR BY THE REGISTER BRANCH OFFICES

- **4.2.1** The Register Branch Office shall receive and review requests for survey of ships in compliance with the Process Procedure for Review of Requests for the RS Services and General Conditions for Rendering Services by Russian Maritime Register of Shipping.
- **4.2.2** The requests shall be ensured in compliance with the rules, instructions, procedures, circulars and other documents in respect of surveys of ships in service and including those under repair, conversion and modernization issued by the Register and the Flag State MAs the Register authorized by.
- **4.2.3** Latest update of a survey performed shall be sent to the RS Branch Office for in-service supervision within 24 h after the survey.
- **4.2.4** Copies of the RS records issued to the ship in compliance with the RS regular procedure established by RS (except for the documents, issued upon the results of the ship survey after the PSC/FSI inspection/detention), issued during technical supervision and verified as appropriate, shall be sent to the RS Branch Office for in-service supervision or for verification check within ten working days from the date of the survey completion. Copies of the documents issued upon the results of the ship survey after the PSC/FSI inspection/detention by, shall be submitted to the RS Branch Office for in-service supervision and to RHO within three working days after completion of the survey.

# 4.3 FULFILLING REQUESTS FOR SURVEY OF RS-REGISTERED SHIPS IN SERVICE AND INCLUDING THOSE UNDER REPAIR BY THE REGISTER HEAD OFFICE

**4.3.1** A request for the ship survey received by RHO shall be reviewed by the Head or an authorized RHO specialist so as to be aware that it contains the data necessary for the ship survey (refer to 4.1.3) and to determine the RS Branch Office to fulfill the request.

When the necessary information is not available at the request, this information shall be additionally demanded in writing or via voco from the shipowner/operator.

- **4.3.2** The request received by RHO shall be sent via the "Thesis" System to the RS Branch Office the area of activity of which the ship belongs to for its further processing and fulfillment. Information on the forthcoming survey shall also be sent to the RS Branch Office for in-service supervision.
- **4.3.3** The RS Branch Office which receives the request for ship's survey shall review and record the request in accordance with the Register procedures and General Conditions for Rendering Services by Russian Maritime Register of Shipping.

When the Register has no resources, RHO shall send an authorization to ACS in compliance with 4.4.

- **4.3.4** The latest update of the survey performed in compliance with the requirements of Regulations on Ship Survey Records shall be sent to the Register Branch Office for in-service supervision within one working day after the survey.
- **4.3.5** Copies of records issued to the ship and verified in the established order shall be forwarded to the Register Branch Office for in-service supervision or for verification check within ten working days from the date of survey completion in compliance with the Procedure for Application of the RS Document Forms Issued during the RS Technical Supervision.

# 4.4 ISSUE OF AUTHORIZATION TO ACS TO SURVEY SHIPS IN SERVICE OR INCLUDING THOSE UNDER REPAIR, WHICH ARE REGISTERED WITH RS

- **4.4.1** In case the ship survey cannot be carried out in a port of a specific area, RHO authorizes the ACS-IACS Member, having a mutual substitution agreement with the Register and the Flag State MA recognition, to carry out the survey. The survey authorization shall be sent to ACS and in copy to the shipowner/ship operator.
- **4.4.2** When selecting the ACS-IACS Member to carry out the survey of ship proceeding from survey location, it shall be noted that services of only those ACS may be used which have exclusive surveyors at their disposal to perform this work in this region. The text of authorization issued to an ACS IACS Member shall include the requirement to perform the survey by the ACS exclusive Surveyor.

An Exclusive Surveyor of a classification society-IACS Member may be considered an Exclusive Surveyor of another classification society-IACS Member provided that the mentioned societies have agreed to use jointly their resources (their surveyors) for conducting surveys (Mutual Substitution Agreement).

- **4.4.3** All works under provision of the statutory services by the Register shall be performed only by the RS exclusive surveyors. In exceptional and well-grounded cases for conducting the statutory surveys the Register shall use only exclusive surveyors of ASC, which has a mutual substitution agreement with the Register, provided that this ASC is recognized by the Flag State MA. In those cases, when it is required by the Flag State MA, possibility of involvement of ASC in statutory surveys shall be approved by the Register with the Flag State MA before issuing of the relevant authorization to ASC.
- **4.4.4** The copies of the records received from ACS shall be examined by the authorized specialist of RHO so as to ascertain that the type and scope of the performed survey are in compliance with the authorization issued to this ACS. After that the documents shall be within three working days forwarded to the RS Branch Office for in-service supervision.

# 4.5 FULFILLING REQUESTS FOR SURVEY OF SHIPS IN SERVICE CLASSED WITH ACS

- **4.5.1** With regard to the ships classed with ACS the Register upon a written authorization of ASC submitted directly to RHO or through the RS Branch Office and in compliance with the instructions, set forth in the Guidelines, as well as on the basis of provisions of the mutual substitution agreement with ACS, shall carry out:
- .1 technical supervision of ships under repair or conversion in compliance with the rules of RS or other classification organization;
  - .2 all types of surveys and tests of ships, their hulls, machinery, equipment and outfit;
  - .3 assignment, confirmation, extension and reinstatement of class;
  - .4 tonnage measurement of ships and load line assignment;
- .5 drawing up and issue of documents provided by the International Agreements in accordance with the established procedure.
- **4.5.2** If the ACS authorization for statutory survey is available, there also shall be authorization of Flag State MA to the Register for carrying out of this survey. When appropriate, the authorization shall be priory agreed by ACS with the Flag State MA.

Requirements of international conventions and additional instructions of the Flag State MA shall be strictly complied with.

- **4.5.3** At the survey the requirements of the Register Rules shall apply within the scope not exceeding the requirements of the rules of ACS which issued authorization.
- **4.5.4** Where defects and deficiencies, which endanger the ship and safety of human life, are identified and/or a survey not specified in the ACS authorization is necessary, the Register Branch Office performing the survey shall immediately inform RHO of it, and the latter shall send a request to ACS to receive

additional instructions. The instructions submitted by ACS shall be forwarded to the Register Branch Office via RHO.

**4.5.5** TThe written authorization from ACS received by RHO shall be examined by the Head or authorized specialist of RHO so as to ascertain that it contains the data necessary for the ship's survey and determination of the Register Branch Office which will be authorized to carry it out.

The authorization shall contain the following data:

- .1 type of survey, scope of repair (for ships under repair);
- .2 list of the ship documents requiring approval/issue/renewal/confirmation/extension;
- .3 terms, for which the document is authorized to be issued/renewed/confirmed/extended;
- .4 port of call, name of shipyard (for ships under repair);
- .5 date of the ship arrival at a port;
- .6 detailed particulars of the agency company.

In case the above mentioned data are non-available in the authorization, the appropriate request shall be additionally forwarded to ACS in writing.

**4.5.6** In order to carry out the ACS authorization the RS Branch Office in the area of activity of which the ship is located shall be assigned. The appropriate authorization from RHO with the ACS authorization and instructions of the Flag State MA (if applicable) attached shall be forwarded to the Branch Office in charge of execution via the "Thesis" System.

The information on the Register Branch Office which is authorized to survey the ship with the particulars necessary for contacting this Branch Office shall be forwarded to ACS.

If data/instructions are received from ACS and/or the Flag State MA which are additional to the authorization registered in RHO, they shall be also forwarded to the Branch Office. On the basis of the authorization received the Branch Office records the authorizations with regard to provisions of the RS procedures (refer to 4.3.3).

**4.5.7** The records for the ship shall be drawn up, verified and issued to the ship based on survey results in accordance with the Procedure for Application of the RS Document Forms and the effective RS procedures.

Where it is expressly provided in the ACS authorization that certificates/reports shall be issued on the ACS forms to be forwarded together with the ACS authorization, the mentioned documents shall be drawn up using the ACS forms based on survey results.

**4.5.8** After completion of survey the Branch Office-Executor shall send copies of records in electronic form issued to the ship/drawn up based on survey results to RHO within two working days, unless otherwise expressly specified in the RHO authorization.

The received documents shall be examined by the authorized specialist of RHO so as to ascertain that the type and scope of survey are in compliance with the requirements of the ACS authorization, and thereafter, within two working days they shall be forwarded to ACS.

# 4.6 FULFILLING REQUESTS FOR SURVEYS INVOLVING THE ISSUE OF A DOUBLE SET OF CERTIFICATES

# 4.6.1 Load line conversion.

With a written consent of the Flag State Government, the ship may be permitted to carry two international load line certificates if it fully complies with the applicable statutory requirements for two freeboard values. To ensure the ship compliance with applicable RS Rules and statutory requirements, freeboard, strength, stability, etc. calculations should be made. After all the necessary documentation being agreed, the ship shall be surveyed in compliance with the instructions (if any) of RHO and Flag State MA.

The RS surveyor shall make a survey based on the request to check compliance with the load line assignment provisions and issue, where necessary, the specification of terms for the load line assignment, check the painting of relevant load line, availability of the documentation approved by RHO, namely, freeboad calculations, ship stability information, loading manual (where applicable), tonnage calculations, etc.

The issue of two international load line certificates by the Register shall be confirmed by an entry in the Load Line Conversion Record invariably provided on board for the case. In addition, the RS surveyor shall make sure that the certificate being used complies with the load line painted on the ship's side and the other certificates are kept in a sealed envelope preserved in the master's safety locker. The surveyor shall seal the unused set of the RS certificates in an envelope and transfer it for storage on board of which a relevant entry is made in the ship survey status.

The master shall ensure that load lines for the forthcoming voyage are painted on the ship's side (so they make a contrast to the ship's side), and all other load lines are removed (painted the same colour as the side) before loading the ship.

The new load lines shall be examined by the RS surveyor who, having ascertained compliance of all the modifications and familiarized with the ship condition, shall sign the Record and indicate the certificate to be used.

During periodical (annual, intermediate) surveys, relevant entries shall be made in both sets of the RS documents to endorse the certificates.

Where the services of the RS surveyor can not be provided, the master may introduce the amendments after receipt of the Flag State MA approval. Should the ship be regularly making voyages to distant ports where the RS surveyor's services are not readily available a single written statement with detailed information including port names may be sent.

Where modifications are introduced by the master, these shall also be entered in the ship's log.

The sealed envelope preserved in the master's safety locker which is the property of the Flag State MA, may only be opened by the RS surveyor (or the master with the Flag State MA permission).

After the initial issue of the Conversion Record, the responsibility for its maintenance and updating as well as for filing the application to the Flag State MA concerning its renewal when its validity expires or where the freeboard assigned earlier is altered rests with the shipowner.

#### 4.6.2 Alteration of ship purpose and other characteristics.

When using fishing vessels as cargo or special purpose ships carrying more than 12 persons of special staff, or special purpose ships as passenger ships, the shipowner shall be required to modify or convert the ship to the extent necessary to comply with the requirements of the RS Rules for cargo ships, special purpose ships or passenger ships in respect of stability, fire protection, statutory equipment, load lines, etc. Should the above ships make international voyages, they shall comply with the relevant statutory requirements. The above altered-purpose ships shall be contemplated as ships of the new purpose. The ship certificates shall be corrected accordingly. The ship may carry two sets of the RS documents, namely, as a fishing vessel and a cargo/special purpose ship or as a special purpose ship and a passenger ship. In any case, the ship shall fully comply with the RS Rules for the first or the second document set.

Besides, the shipowner shall send a request for an occasional survey to the Register in connection with the RS certificates interchange in view of the ship purpose or other parameters (deadweight, tonnage, etc.) alteration.

The document issue procedure shall be similar to that described in 4.6.1 (the load line conversion record being only issued where two freeboards are assigned).

After conversion, the ship type (and subtype) designation in the Register documents shall be the RHO competence.

# 5 REQUIREMENTS TO MEASURING EQUIPMENT USED IN SURVEYS OF SHIPS

- **5.1** Instruments and gauges<sup>1</sup>, which Surveyors rely on to make decisions affecting classification or statutory certification, shall be individually identified, verified/calibrated to a recognized national or international standard. The Surveyor may accept simple measuring equipment (e.g., rulers, measuring tapes, weld gauges, micrometers) without individual identification or confirmation of calibration, provided they are of standard commercial design, properly maintained and periodically compared with other similar equipment or test pieces. The Surveyor shall satisfy himself that other equipment (e.g., tensile test machines ultrasonic thickness measurement equipment, etc.) is verified/calibrated to a recognized national or international standard. The measuring and test devices, equipment and instrument subject to verification/calibration which are used onboard to control the parameters of supervised items and to carry out measurements, shall be stamped with calibration decals and/or have documents (calibration records) confirming performance of their verification/calibration by competent bodies.
- **5.2** When submitting the shipboard measuring equipment for verification/calibration at the port of call, the shipowners/operators shall specify in then-requests that a laboratory (organization) performing verification (calibration) of measuring equipment was certified (re-cognized) by the State Committee for Standardization and Metrology. The document of the laboratory performing calibration of measuring equipment issued to the ship shall specify that the laboratory is certified (recognized) by the State Committee for Standardization and Metrology of the country, on which territory the laboratory resides.
- **5.3** The list of the shipboard measuring equipment subject to verification/calibration shall not be agreed with the Register. The Register does not set the intervals between verification (calibration) of the shipboard measuring equipment and measuring devices. The verification intervals are set by the Flag State national standards and Flag State MA. The shipboard measuring equipment shall be verified/calibrated within the specified intervals by competent bodies duly certified by the state authorities for performing verification /calibration. At periodical surveys the Surveyor checks whether measuring equipment was calibrated on time based on verification/calibration records and/or calibration decals. If for the time of survey the terms of verification/calibration of measuring equipment of essential items affecting operational safety and environmental protection are overdue the Surveyor shall demand Performance of verification/calibration prior to the survey.
- **5.4** When such verification/calibration cannot be performed, the Surveyor may accept measuring equipment fitted on board the ship and used in examination of shipboard equipment and machinery (e.g. pressure, temperature or rpm gauges and meters) based either on verification/calibration records or comparison of readings with multiple similar instruments. A ship report on comparative calibration of measuring equipment using shipboard reference instrument or backup instrument or by any other equivalent method may serve as calibration records. In such a case an occasional survey of measuring equipment shall be assigned after its

verification/calibration, which shall be carried out within three months after expiry of specified term of verification/calibration or upon the ship arrival to the port where the verification/calibration may be carried out but not later than in six months.

<sup>&</sup>lt;sup>1</sup>Hereinafter referred to as "measuring equipment".

## 6 DOCUMENTS DRAWN UP BY THE REGISTER

**6.1** As a result of the Register supervision, the ship documents are drawn up after surveys, issued to ships and sent to the relevant Register Branch Offices, which confirm compliance with the requirements of the Register Rules and international conventions, the IMO Codes, agreements and national regulations.

Scope and number of the Register documents, their application, procedure for drawing them up, issuance and submittal can be found in the relevant Register internal procedures.

- **6.2** Survey results shall be recorded by the Surveyor in relevant reports and checklists. By his records in reports and other documents the Surveyor shall confirm only what he saw and examined during the survey. None of the Register documents can be issued to the ship without performance of a relevant survey except for the cases related to replacement of document as decided by RS and/or Flag State MA, submittal of duplicate documents by shipowner's request.
- **6.3** The final Ship Survey Statement (Form 6.1.03) where the survey has been carried out using the check-list of the STORM system (Form 6.1.01) or a report of the appropriate form, issued to the ship, serve as a basis for submittal, endorsement, extension or retainment of the terms of validity of the relevant certificates.

During survey, the Surveyor shall record the results of examinations, inspections and tests performed with respect to the items of technical supervision in reports on survey of the ship (Form 6.3.10) drawn up at each ship attendance, or in Record Book of Technical Supervision during survey of ship under repair (Forms 6.3.48r or 6.3.48e) drawn up for supervision during repair of the ship according to Section 3, Part II "Carrying out Classification Surveys of Ships".

The documents drawn up based on survey results (reports and check-lists) shall include sufficiently detailed description of the scope of survey carried out, results of measurements and tests, records of any malfunctions, damage and defects, repairs and replacements performed, technical condition of the supervised item by the completion of survey.

Any document issued by the Register under the survey results shall indicate the ship compliance with the applicable requirements of the Register rules and international conventions on the date of survey.

- **6.4** All the set requirements shall have a deadline in the form of a periodical or occasional survey (see Annex 17). The requirements to be fulfilled prior to the ship departure shall be recorded in the Report on Survey of the Ship (Form 6.3.10) and officially submitted on board immediately after their issue.
- **6.5** The RS basic classification document is a Classification Certificate (Form 3.1.2). The Certificate (Form 3.1.2) is issued in compliance with the Rules, the Rules for Construction or other applicable RS rules. For the particular types of ships, FOP other forms of Classification Certificates are provided (for example, the Classification Certificate of Fixed Offshore Platform (FOP) (Form 3.1.2P), Classification Certificate for Pleasure Craft (Form 3.1.9), etc.). As regards the MODU/FOP Rules, the information on the classification documents to be issued is given in Section 10, Part II "Carrying Out Classification Surveys of Ships".

For sea-going self-propelled ships not covered by the requirements of the International Convention SOLAS-74, as amended, with a gross tonnage of 100 and above, the Equipment Certificate (Form 4.1.1) is issued by RS in compliance with the Rules for the Equipment of Sea-Going Ships.

For sea-going self-propelled ships with a gross tonnage below 100, all non-self-propelled ships, pleasure craft, the Equipment Certificate shall be issued (Form 4.1.1RF).

For ships not covered by the provisions of the International Convention on Load Lines, 1966, as amended (LL-66/88 Convention), as well as for the pleasure craft over 10 m in length, the Load Line Certificate (Forms 1.3.1-1.3.9, as applicable) shall be issued by the Register in compliance with the applicable Rules for the Safety of Dynamically Supported Craft or the Rules for the Classification and Construction of High-Speed Craft, etc.

For ships not covered by the provisions of the International Convention on Tonnage Measurement of Ship, 1969 (except for the ships flying the flag of Malta, Cyprus and Belize, for which the particular forms are provided), as well as for the pleasure craft, the Tonnage Certificate (Form 1.2.12) shall be issued in compliance with the RS Rules for the Tonnage Measurements of Sea-Going Ships.

On board the ship for which a Load Line Certificate (Form 1.3.1) is issued in compliance with the RS rules or the International Load Line Certificate shall be issued in compliance with the LL-66/88 Convention, the Register shall draw up and issue the Record of Conditions of Assignment of Load Lines (Form 6.7.3 - see instructions for filling-in).

**6.6** The basic statutory documents (i.e. drawn up and issued by RS on behalf of the Flag State MA) are certificates, records, permits prescribed by the relevant international conventions, codes, resolutions and specified in Part III "Survey of Ships in Compliance with International Conventions, Codes, Resolutions and the Rules for the Equipment of Sea-Going Ships".

In addition, for ships covered by the provisions of the International Convention SOLAS-74, as amended, the Register shall issue the Record of Approved Ship Safety Equipment (Form 4.1.2) (issued from 01.02.2017 in compliance with the Instructions for filling-in the form); before that date other Forms of 4.1.2 series were issued for ships) as well as the Record of Approved GMDSS Radio Installation (Form 4.1.6).

As prescribed by the legislation of some Flag State MA, the Seaworthiness Certificate shall be available on board the ship. The document certifying the seaworthiness of ships flying the flag of Azerbaijan, Kazakhstan and the Turkmenistan is the Seaworthiness Certificate (Form 1.1.1), which is issued to self-propelled sea-going ships with a gross tonnage of 100 and more, or the Seaworthiness Certificate (Form 1.1.2), which is issued to self-propelled sea-going ships with a gross tonnage below 100, all non-self-propelled ships, pleasure craft. The Seaworthiness Certificate (Form 1.1.2), the Equipment Certificate (Form 4.1.1RF) shall not be issued for ships flying the flag of Azerbaijan, Kazakhstan and Turkmenistan.

As prescribed by the RF legislation, the Passenger Certificate shall be available on board the passenger ships. To comply with this requirement, regardless the applicability of SOLAS-74 Convention, as amended, the Passenger Certificate (Form 1.2.9) shall be issued by RS for sea-going ships flying the RF flag. For passenger ships flying the RF flag, covered by SOLAS-74, as amended, such a Passenger Certificate shall be issued in addition to the Passenger Ship Safety Certificate prescribed by SOLAS-74, as amended. The validity period of the Passenger Certificate (Form 1.2.9) and the terms of its annual confirmations shall comply with the terms of Classification Certificates with due regard to the provisions stated in 2.4.1, Part II "Survey Schedule and Scope" of the Rules. As compared to the provisions stated in 2.4.1.4.2, Part II "Survey Schedule and Scope" of the Rules, survey for renewal of the Passenger Certificate (Form 1.2.9) shall be carried out not earlier than 3 months prior to expiry of the existing Passenger Certificate and not later than the expiry of its validity (within the "windows" of the time period: - 3 months / + 0 months). The Passenger Certificate (Form 1.2.9) shall be confirmed annually within the "windows" of time periods (- 3 months / + 3 months from the annual date).

In compliance with Directive 2009/45/EC, Directive 2010/36/EU, for sea-going passenger ships engaged in voyages between the ports of the EC member states, the Passenger Ship Safety Certificate (Form 1.2.9EC) shall be issued. The validity period of the Certificate shall not exceed 12 months in compliance with Articles 12 and 13 of Directive 2009/45/EC. Record of Equipment (Form 4.1.10EC), shall be permanently attached to the Passenger Certificate and shall be continuously amended.

For the passenger ships flying the flag of Greece, the Passenger Ship Safety Certificate shall be issued (Form 1.2.9GR) having the validity period not exceeding 12 months based on Decree 103/99 as amended, of the President of the Hellenic Republic, to confirm the compliance of the ship with the provisions of Directive 2009/45/EC. Record of Equipment for the Passenger Ship Safety Certificate (Form 4.1.10EC), shall be permanently attached to the Passenger Ship Safety Certificate.

A number of the Flag State MA have additional instructions to be strictly observed when issuing the applicable documents upon their authorization.

If the Flag State MA (except for the RF MA), or if against the authorization of the recognized organization, or if the following national documents are available onboard:

the Load Line Certificate;

the Equipment Certificate;

the Tonnage Certificate;

the Pollution Prevention Certificate (international and national);

the Seaworthiness Certificate;

Documents under IACS Recommendation No. 99

or individual certificates from those listed, then the RS documents similar to them (by the name) may not be issued, unless there is a special request from the shipowner.

At the same time, the RS surveyor shall necessarily have to enter the relevant information into the status of ship's surveys (for example, "The certificates (shall be listed which) issued by the Flag State MA or Recognized Organization (shall be indicated), (the date of issue of documents and validity period shall be indicated) are available onboard. The issuance of the RS similar documents is not required.

At the discretion of the shipowner or against the decision of the State Flag MA the following documents shall be issued by the Register for ships not covered by the requirements of SOLAS-74, as amended:

"Statement of Compliance with the provisions of the IACS Recommendations for the Safety of Cargo Vessels of less than Convention Size (No. 99)" and "Record of Equipment for compliance with the IACS Recommendations for the Safety of Cargo Vessels of less than Convention Size (No. 99)" in compliance with the IACS Recommendation No.99 with due regard to the additional requirements of the Flag State MA (for example, MA of Malta shall draw up the Statement by itself upon receipt of the filled in check-list "Non-Convention Vessel Survey Guidelines (IACS 99)") from RS. When such forms are issued to the ship, the Certificate (Form 4.1.1 or 4.1.1RF (as applicable)) shall not be issued.

RS shall carry out surveys of ships subject to the requirements of international conventions (codes), but in some cases their provisions do not provide for issuing international certificates or the forms of international certificates are not prescribed. At the same time, at the request of the shipowner, to confirm the compliance of the ships with the specified requirements, certificates issued by RS shall be given.

These certificates shall include, for example, the Certificate of Compliance of Equipment and Arrangements of the Ship with the Requirements of Annex V to MARPOL 73/78 (Form 2.4.15), Certificate of Fitness of the Ship for the Carriage of Bulk Cargoes (Form 2.1.18) with the Supplement to the Certificate of Fitness of the Ship for the Carriage of Bulk Cargoe (Form 2.1.19), Certificate of Fitness of the Ship for the Carriage of Dangerous Goods (Form 2.1.22 and Form 2.1.22.1).

The shipowner's request to issue / renew such certificates can only be satisfied, if in each case, for each certificate of an official request in writing, which shall be sent to the ship's file together with other request for survey.

- **6.7** Issuing of equivalents, exemption certificates, waivers shall be regulated by the provisions of applicable international conventions, codes, these Guidelines and the applicable RS internal procedures. Issuing of waivers shall be regulated by the RS internal procedures. The procedure of granting exemptions by RS is specified in 4.3, Part III "Survey of Ships in Compliance with International Conventions, Codes, Resolutions and Rules for the Equipment of Sea-Going Ships".
- **6.8** The above instructions are not comprehensive. A package of the RS-issued documents shall be specified in each particular case taking into consideration the requirements of these Guidelines, the RS rules, the RS internal procedures. If not otherwise stated, the basis for issuing/confirmation/renewal of the above documents are the RS records listed in 6.3, (refer to the RS rules, Guidelines, instructions for filling-in the particular forms, the RS internal procedures). For Certificates (Form 4.1.1 RF or 1.1.2) the Report on Annual/Occasional/ Special Survey of the Ship (Form 6.4.6) is a record.
- **6.9** At occasional surveys in connection with repair, confirmation of reclamation reports, granting of postponements, hull renovation, ship delivery to and redelivery from time charter, verification of compliance with the requirements put forward by the Register, when the survey is held on the Branch Office initiative and in other cases, the survey results shall be drawn up into Report on Survey of the Ship (Form 6.3.10) or using STORM system (Form 6.1.03). Where occasional survey is required to be carried out in a periodical survey extent, the fulfillment of prescribed scope of survey shall be confirmed (stated) in check-lists (statements or reports) of relevant periodical survey, including STORM system by drawing up of statement (Form 6.1.03). In case of an accident, the relevant Report on Occasional Survey of the Ship in Connection with an Accident (Form 6.3.32).

- **6.10** Directions on issuing the RS documents before passages are given in 8.7 of Part II "Carrying out Classification Surveys of Ships".
- **6.11** On tugs and ships intended for towing operations upon a shipowner's request the Bollard Pull Certificate (Form 6.3.45) shall be issued to confirm the total pull of the ship using special towing equipment on different main engine operating conditions. Values of pull (nominal and maximum) shall be obtained during mooring trials, carried out in accordance with the Bollard Pull Testing Procedure (Appendix 1 to the Annex 28 to these Guidelines). The Report and sketch of mooring trials shall be enclosed to the Bollard Pull Certificate in accordance with this Procedure.
- **6.12** The Register may fully or partially recognize documents issued by the ACS, technical supervisory bodies and other organizations.
- **6.13** Documents issued to the ship by the Register shall be kept on board and submitted to the Surveyor on his request.
- **6.14** The Register is entitled to cancel or suspend the validity of its documents fully or partially in well-grounded cases.
- **6.15** Copies of documents issued by the Register shall be kept at the Register Branch Offices, which carried out the surveys; at the RS Branch Offices for in-service supervision. Ship files are the Register working materials with which representatives of the shipowner and persons or organizations representing the shipowner, as well as the supervising bodies, may be familiarized together with the Register employees.
  - **6.16** In addition to the above the following shall be considered when drawing up the Register records:
  - **6.16.1** Purposes of recording shall provide:
- evidence that prescribed surveys have been carried out in accordance with the applicable RS rules; registration of surveys carried out with findings, scope of repairs/conversion/modernization of the ship carried out, installation/replacing of the items of the RS technical supervision etc., verification of class conditions (requirements);

documentary evidence of the survey performed. Survey results including actions taken shall be generated in a chronological sequence in order to be reviewed and verified;

information for planning of future surveys;

the information collection, which may be used as input for improvement of the RS rules and instructions.

- **6.16.2** When survey is divided among the different RS Branch Offices or a part of the survey is carried out by ACS upon the RS authorization, the RS records shall be made by each of them for each part of the survey completed and they shall reflect the scope of the completed part of the survey. A list of the items surveyed shall be made available to the RS next surveyor, prior to continuing or completing the survey. Thickness measurement, testing of tank, repaired items etc. (as applicable) carried out shall also be listed for the RS next surveyor. The RS or ACS surveyor (provided the RHO authorization is available), prior to continuing or completing the survey, checking compliance with the requirement, shall check and confirm the accomplishment of the outstanding scope of the survey, the requirements imposed earlier.
- **6.16.3** The RS records may be supplemented with drawings, diagrams and other information, if the RS surveyor finds it necessary.
  - **6.16.4** The survey results shall be confirmed by photos (refer to 3.4, of the Part).
- **6.16.5** If repair is required based on the survey results, the surveyor shall follow the provisions of Annex 17 to the Guidelines with respect to imposing requirements. Unless the required repairs are completed during survey, the specific time limit for the repairs as the condition of class shall be required by the RS surveyor. The condition of class with identification of each item to be repaired shall be sufficiently detailed by the surveyor.
- **6.16.6** If provided by other Sections of the Guidelines as well as by the RS other normative documents, additional notifications on the RS records execution shall be observed.
- **6.16.7** When the RS agreed/approved amendments are made in the scope of equipment, other data and items of technical supervision, the RS surveyor shall check the compliance with all the applicable requirements related to the amendments to be made. Therewith, the RS surveyor shall introduce the updated information on the amendment made to the applicable RS records (for example, Forms 4.1.2, 4.1.1, etc., as applicable).

#### 7 ASSIGNMENT OF OCCASIONAL SURVEYS

**7.1** The occasional surveys shall be assigned to the ship in the following cases: accidents;

detention of a ship by Port Authorities;

ships entering lay - up;

ship's passage;

changing of the Register class notation if the ship in service;

temporary impossibility to carry out the specified requirements of the RS rules or international conventions;

implementation of the new RS requirements or requirements of international conventions for ships in service:

changes relating to ship's structures, arrangement, equipment and outfit not agreed with the Register; the repair, modernization or conversion of the ship or its components without Register approval or technical supervision;

other justified cases.

- **7.2** Meeting the specified classification requirements shall be condition of class and the validity of the classification certificate.
- **7.3** Meeting the specified statutory requirements shall be condition of the validity of statutory certificates.
- **7.4** Imposing, clearing and controlling any Register requirements shall be in compliance with Annex 17 of the Guidelines.
- **7.5** Each imposed requirement shall be assigned with exact due date registered in the List of Survey's Status.

The exception is a current requirement imposed during the ship survey (including survey during repair). Such requirements shall be carried out prior to the ship survey completion, registered in Record Book of technical supervision during survey of ship under repair (Form 6.3.48) or in Report on Survey of the Ship (Form 6.3.10) depending on the case, the shipowner shall be mandatory notified.

- 7.6 Requirements relating both to the RS rules, and international conventions (stability, strength, fire protection etc.) shall be registered in the Classification Surveys Section of the List of Survey's Status.
- **7.7** In case of the accident the provisions of 3.3, Part II "Survey Schedule and Scope" of the Rules shall be followed.
- **7.8** In case of ship's detention by the Port Authorities the Procedure for Responding to Port State Control shall be followed, namely:
- .1 in case of the first detention for 12 (twelve) calendar months if the ship has not been subject to the survey directly in the port after the detention it shall be subject to the occasional survey within time period not exceeding one month from the date of detention;
- .2 in case of repeated detention for 12 (twelve) calendar months if the ship has not been subject to the survey directly in the port after the second detention it shall be subject to the occasional survey within time period not exceeding 14 (fourteen) calendar days from the date of detention;
- .3 the RS Branch office for in-service supervision shall within 1 (one) working day after obtaining the information related to the ship detention register the requirement for the ship occasional survey in the Classification Section of the List of Survey's Status, and shall advise the shipowner.
- **7.9** When a ship is laid-up or put in service after laying-up, the provisions of 4.10, Part II "Survey Schedule and Scope" of the Rules, shall be followed.

When a ship is in conservation or commissioned after conservation, the provisions of 4.11, Part II "Survey Schedule and Scope" of the Rules shall be followed.

**7.10** In case of the RS class reinstatement, 4.6, Part II "Carrying out Classification Survey of Ships" shall be followed.

- **7.11** In case of changing of class notation of the ship in service, the provisions of 3.2, Part II "Survey Schedule and Scope" of the Rules shall be followed".
- **7.12** In case of changing of the class notation of the ship in service, the provisions of 3.2, Part II "Survey Schedule and Scope" of the Rules shall be observed".
- **7.13** In case of impossibility to carry out the specified requirements for retaining the validity of the classification and statutory certificates, the following shall be considered:
- .1 if during the ship survey an applied requirement of the RS rules can not be carried out on board the ship (until the survey completion), the ship shall be subject to the occasional classification survey relating to the requirement performance;
- .2 if during the ship survey any applied requirement of the international conventions or any applied national Flag State MA requirement cannot be carried out on board the ship until the survey completion, the ship shall be subject to the occasional statutory survey related to the requirement performance. Possibility of imposing the requirement and the due date thereof, as well as validity period of the appropriate certificates shall be agreed with the Flag State MA (when it is provided by the agreement between the RS and Flag State MA);
- .3 while specifying the requirement due date, one shall be guided by maintenance of safety conditions of ship's operation and personnel on board, pollution prevention by taking the appropriate measures/restrictions, namely:

performing temporary repair of structures, arrangements, equipment and machinery (considering the provisions of 4.2.3.3, Part III "Survey of ships in compliance with International conventions, Codes, Resolutions, and Rules for the Equipment of Sea-Going Ships" and Annex 17 of the Annexes to the Guidelines on Technical Supervision of Ships in Service);

provision of ship with the alternative or additional equipment and/or outfit;

restriction of ship's navigation area and operating conditions;

development and implementation by the shipowner of organizational/technical (RS approved) measures for condition monitoring of item (items) of technical supervision in respect of which the requirement is not performed.

When the above mentioned measures/restrictions can not be provided, the specified requirement shall be performed prior to the ship's departure on a voyag.

- **7.14** In case of the implementation of new RS requirements or the requirements of international conventions for ships in service then to retain validity of the classification and statutory certificates the following shall be followed:
- .1 if any new accepted requirement of the RS rules is applied to the ship in service, then such requirements shall be registered in Section "Classification Surveys" of the List of Survey's Status with due date determined by a new requirement.

If due date of the requirement is not specified (the exact date is unclear), but is linked with the date of any periodical survey, then the text of the requirement shall include the reference to this periodical survey, and the final date of such periodical survey shall be specified as the due date;

.2 if any new accepted requirement of the international convention or national requirement of the Flag State is applied to the ship in service, then considering provisions of 7.6 this requirement shall be registered as Memoranda for Shipowners and Surveyors in section "Statutory Certificates and Surveys" of the List of Survey's Status with the due date determined by the new requirements.

# PART II. CARRYING OUT CLASSIFICATION SURVEYS OF SHIPS

## 1 GENERAL

- 1.1 Ships in service, including the testing of technical supervision items, are covered by the requirements of those Rules for Construction according to which they were built unless otherwise specified in the subsequent editions of those Rules or the Register circulars. The surveys performance, the issue, extension and confirmation of the Register documents shall meet the requirements of the Rules for the Classification Surveys of Ships in Service in force.
- **1.2** Having followed repairs, conversion or modernization, a ship shall, as a minimum, meet the requirements of the Rules for Construction previously applied to the ship.

Newly installed structures, machinery and equipment shall meet the requirements of the Rules for Construction in force as far as it is reasonable and technically practicable.

Repair work (welding, riveting and thermal treatment), conversion or modernization and its control, materials and products used during repairs shall meet the requirements of the Rules for Technical Supervision During Construction of Ships and Manufacture of Materials and Products for Ships, the Rules for Construction and the MR on repair, as well as the Guidelines on Technical Supervision of Ships under Construction, Guidelines on Technical Supervision During Construction of Mobile Offshore Drilling Units and Fixed Offshore Platforms and Manufacture of Materials and Products (whatever is applicable).

- 1.3 At initial survey of ships built under the rules other than the Register rules, the availability of the class of a recognized classification body and of the statutory documents issued by foreign competent bodies shall be taken into account. In this case, it is necessary to keep in mind that the Surveyor shall not generally demand on bringing the structures, equipment and machinery installations, fabricated under the rules of ACSs and competent supervisory bodies, into accord with the Rules for Construction in force of structures, equipment, and machinery installation. It is not applied to the obviously hazardous for a ship nonconformity to the requirements of the Rules for Construction (e.g. inadequate stability), to the presence of the requirements of the Rules for Construction in force which are applicable to all the ships in service, or to the Register special instructions. In this case, specifying ship's purpose, its area of navigation, ice strengthening categories, etc., the presence of deviations from the Rules for Construction in force is taken into account by means of appropriate restrictions if needed.
- **1.4** At all the types of surveys, the Surveyor is authorized to settle the problems within the limits regulated by the Rules and the present Guidelines. Any amendments to, or deviations from, the requirements of the Rules and the Guidelines, as applied to a given ship, shall be approved by the RS Branch Office, which is confirmed by a report or another document signed by the Head of the RS Branch Office or by his written message.
- 1.5 If the dangerous defects being the result of structural deficiencies (e.g. incorrect structure, insufficient strength, etc.) are detected during survey, the Surveyor shall demand both to repair damages, and to eliminate the structural deficiencies, which have caused the damages, and shall also inform of these the Branch Office and, if needed, RHO.
- **1.6** Where the defects detected relate to improper operation, the Surveyor shall draw the shipowner's attention to the remedial actions to be implemented for preventing the recurence of defects.

Where the poor operation established, may cause dangerous consequences, the Surveyor shall point to this in the Report on Survey of the ship (Form 6.3.10) and, in exceptional cases, draw the shipowner's attention to this with a letter from the RS Branch Office with a simultaneous notification of the Register Head Office.

1.7 All the items of the Register technical supervision (machinery, boilers, pressure vessels and other equipment and outfit) on board ship shall be provided with the documents required by the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships and, if applicable, manufacturer's documents, as well as, when necessary, appropriate operating manuals

and repair documentation for the products when needed. Certificates of ACS-IACS Member for the machinery products may be accepted as an alternative to the RS Certificates provided that products comply with the Certificates submitted, and, if applicable, with the operating manuals, recommendations by manufacturers of machinery, as well as for tests of items of technical supervision in presence of the RS surveyor, with the RS Certificates issued.

The Surveyor shall demand producing the above documentation when new equipment is fitted on board ship or new outfit is provided, and may demand this documentation during the technical supervision of a ship in service, including in repairs of technical supervision items. During surveys with regard to the class change, it is not necessary to draw up the RS certificates on the RS items of technical supervision included in the RS nomenclature, provided they have the certificates issued by ACS Class - IACS member or the documents/certificates on compliance with the regulations of the Council Directive 2014/90/EU on Marine Equipment<sup>1</sup>.

With regard to certificates on the RS items of technical supervision according to the RS Nomenclatures during the flag change surveys it is necessary to follow the provisions of 4.2.2.1.2, Part III "Survey of ships in compliance with international conventions, codes, resolutions and Rules for the Equipment of Sea-Going Ships" of the Guidelines.

- **1.8** In all types of surveys, the Surveyor shall familiarize himself with the ship's List of Survey's Status (Form 6.3.51-1), reports on the previous survey and check lists, as well as use the information on wastage, damages and defects detected in operation, on repairs and replacements according to the ship's documentation (condition assessment records, ship's reports, notes on drawings, repair sheets, ship's logs and engine room logs).
- 1.9 The scope of the survey conducted, the results of the technical condition assessment, data on measurements and on the extent of repairs and replacements made shall be adequately shown in the reports on survey and check lists to be taken into account in the subsequent surveys. The text and sketches shall unambiguously describe the defects identified, causes of their occurrence and the requirements on their elimination. In case of the reports on survey and check-lists issued on the results of the survey of the objects of technical supervision after repair a reference to the reports on ship repairing yards (with no list and scope of the works performed) is allowed. Copies of the reports shall be sent to the Ship's File.
- **1.10** The assignment of an allowable freeboard for the navigation area specified, the ship's stability and floodability ensured with regard to the ship's purpose and navigation area, a passenger capacity and operational conditions in ice are verified and assessed in a ship's initial survey.

During periodical surveys of ships there is shall be verified the presence of valid documents and the Informations approved, the absence of alterations in the ship's structure, a draught and ship's other characteristics.

Where a need arise to verify the ship's compliance to the above mentioned, the requirements of the appropriate part of the Rules for Construction should be referred to.

**1.11** The Register Surveyor may take part in the activities of various technical commissions as an expert on behalf of the RS Branch Office concerned. The Surveyor expert's report shall be approved by that RS Branch Office, and in exceptional cases, by RHO.

<sup>&</sup>lt;sup>1</sup>hereinafter referred to as the MarED 96/98/EC Directive.

# 2 INSTRUCTIONS AND RECOMMENDATIONS ON CARRYING OUT CLASSIFICATION SURVEYS OF SHIPS AND REFRIGERATING PLANTS

#### 2.1 INITIAL SURVEY

- **2.1.1** An initial survey of ships in operation is carried out on the ships submitted for the first time to the Register for classification, during the transfer of class, in the assessment of a possibility of assigning a class to the ship built without the Register technical supervision, in the reassignment of a class to the ship with the Register's class withdrawn, as well as in changing the Register class notation.
- **2.1.2** The scope of the initial surveys listed in 2.1.1 is established in accordance with the requirements of Section 1, Part II "Survey Schedule and Scope" of the Rules.
- **2.1.3** The instructions and recommendations on the performance of surveys of ships and individual technical supervision items are given in the relevant sections of this Part of the Guidelines.

#### 2.2 ANNUAL SURVEY

#### 2.2.1 General.

- **2.2.1.1** At annual survey of a ship, any changes relating to ship's structures and the technical condition of ship's machinery, equipment and arrangements following an initial survey or a special survey shall be identified.
- **2.2.1.2** The scope of the annual survey of a ship is given in 2.2 of Part II "Survey Schedule and Scope" and in the relevant sections of Part III "Additional Surveys of Ships Depending on their Purpose and Hull Material" of the Rules.
- **2.2.1.3** At annual survey of a ship, the basic instructions on a survey of ships according to Part I "General Provisions" and Section 1 of this Part are used.

#### 2.2.2 Hull.

**2.2.2.1** At annual survey, the hull structures shall be examined from the outside. The survey of the ballast tanks shall be performed, where required, upon the results of special and intermediate surveys. The structures in the ballast tanks generally used for ballasting are subject to an overall survey. Depending on the ship's age and in accordance with the above requirements and enhanced survey programmes, cargo holds and tanks shall also be surveyed. Attention is drawn to the condition of a protective coating of hull structures in cargo and ballast compartments of oil tankers, combination carriers and gas carriers, to the absence of defects like deformations, cracks and excessive wear.

Where the technical condition of structures is questioned, the Surveyor may demand to partially open the cladding, planking and coating of decks, bulkheads and ceilings in order to ensure access for a close-up survey of items.

An outside of the ship's bottom examination at annual survey shall be carried out for the following types of ships:

passenger ships;

dynamically supported craft;

high speed craft;

wooden or composite ships;

ships in NAABSA regime.

**2.2.2.2** If the annual survey, not providing for the hull to be surveyed in dry dock, reveals defects that arise any doubt as to the condition of the outside of the ship's bottom the Surveyor may require that the ship shall be dry docked or the suspect area shall be submitted for in-water examination using underwater TV, or for diving inspection by specialists of a recognized organization. The decision on the further service of the ship depends on the results of such examinations.

**2.2.2.3** The recommendations on procedures for examinations, inspections and detection of worn members of the hull and areas of the most likely occurrence of permanent deformations and cracks.

Note. The recommendations given below in 2.2.2.3.1 to 2.2.2.3.2 may be used by the Surveyors in conducting any types of surveys of hull structures depending on the ship's age and condition.

- **2.2.2.3.1** The recommendations on the examination of the shell plating, deck plating and closing appliances for openings:
- .1 in the examination of the shell plating, particular emphasis shall be placed upon the condition of the upper edge of a sheer strake in way of butt welds, bulwark sections, mooring hawses, the change of a hull section, upon the welding-on of the side plating of superstructures, of transitional brackets, deck guard rails, upon the condition of the deck plating in way of the corners of cargo hatch cutouts, between the hatches where substantial corrosive wear is expected, in way of the welding-on of various means for cargoes securing;
- .2 the inspection of worn hull members is first of all carried out in areas liable to intense wastage due to the corrosive environment, sweating, insufficient ventilation and excessive humidity, and where technical maintenance during operation is impeded (e.g. in dry spaces below an engine room, in bilge wells, on the plating under the suctions of systems, etc.).

The inspection shall be carried out in the following areas:

in holds and compartments wherein intensive wastage is likely to occur on the side of cargo spaces due to the kind of the cargo carried (coal, mineral fertilizers, various oil products, salt, chemicals, acids, fish in barrels, etc.), in double bottom compartments under boilers or in those alternatively used for liquid fuel oil and ballast, in ballast tanks, in pump rooms of oil tankers, in way of heating pipelines, in bilges, in compartments with cement and other coatings, in bilge wells, in segregated (clean) ballast tanks of oil tankers:

at hull members with increased wastage according to operational experience;

on surfaces where still water is likely to occur (e.g. on deck plating under the deck machinery at the fore end, in way of scuppers and vent duct coamings);

at hull members having small as-built thicknesses, especially at the fore and aft parts of a wind and water strake, on welded-on branch pipes of bottom and side valves, as well as on the plates of a reduced thickness allowed due to the presence of the approved means of corrosion protection;

at hull members with potential groove wear (in way of butts and seams of the shell plating at the outside of the ship's bottom, on the longitudinal and transverse bulkheads plating of oil tankers, in the weld zone of framing members welding to the shell plating at the underwater hull, as well as to the bulkheads plating of cargo/ballast tanks and to the bulkheads plating of other tanks);

in oil tanker's tanks on bottom plating in way of drain holes for a liquid cross-flow, where grooving is likely to occur, in cofferdams, drain tanks for oil residue and bilge water;

in sea chests and chain lockers;

in areas of linear wear (plates of an ice belt, a fore section of bottom plating, a wind and water strake, especially within the transition area between the forebody entrance and parallel body, as well as at the aft part);

in areas of the intersection of longitudinal and transverse framing girders, mainly at the bottom, where spot wear may appear;

on the plating of lower sections of bulkheads and on the inner skin in way of the connection with tween decks, inner bottom plating;

within sections with pitting.

In an examination of framing members, special consideration shall be given to the locations of potential local wear, in particular, at the joints of framing members with knees and brackets, at the intersections of longitudinal and transverse framing members, and also at the locations of hull members deformation:

.3 the most likely areas where residual deformation may arise are the following:

the deck and coaming of dry cargo ships in way of derricks, of ships carrying cargoes in bulk which are handled with grabs, and of timber carriers; the ship's side within the ice belt and in way of moorings;

the fore and aft ends, and the superstructure side of the ships passing through locks, channels, narrow waters:

the inner bottom of cargo holds of the ships carrying bulk cargoes with a small specific volume, and of timber carriers;

the fore part of a ship's side which has a large flare and is subjected to slamming;

the bottom and bilge of ships operating in shallow water, passing through rivers and channels, being moored for drying-out and examination at river offings at low tide;

the fore part of the bottom subjected to ice and slamming impact;

the bilge keel, bulwark and guard rails;

the bulkheads and inner skin of the oil tankers of which the holds can be partially filled, of the ships carrying bulk cargoes with a small stowage factor of which the bulkheads are cleaned by impacting, of timber carriers;

the sections of framing members close to supports (approximately within 1/10 of the span), as well as brackets:

members of side framing, mainly on ice ships and ships being moored at sea;

the areas where plates of transverse bulkheads are connected to a ship's side, in particular, on ice class ships and ships moored at sea;

.4 the most likely areas of potential cracking are the following:

corners of openings in cargo hatches;

end bulkheads of superstructures and deckhouses;

coaming terminations;

transitional areas between a sheer strake and a superstructure;

knee joints of girders;

intersections of primary members and deep members;

holes for structures lightening;

fillet and butt welds of flat bars;

places exposed to intense vibration or impact load (running vibration and wave vibration, slamming, ice and mooring loads, hydrodynamic loads);

structures at the aft and fore ends, the side structures within an area of alternating waterlines, bottom grillages of tankers, longitudinal and transverse bulkheads, etc.;

bulkhead panels located at an ice belt;

shell plating, plating of longitudinal and transverse bulkheads in areas of groove wear (generally, in the underwater hull on the side opposite to framing welds);

structures of a stern frame and its joints with shell plating, an area of welded branches of side valves; bilge keel, corners of sea chest cutouts;

intersections of bottom girders with floors, and of underdeck girders with web beams;

bottom plating at girders in way of drain holes for cargo overflow;

areas of potential cracking due to essential permanent buckling of plating and framing;

areas of terminations of intermediate frames for ice class ships with no additional strengthenings; deck area in way of ends of brackets fitted in the plane longitudinal coamings.

On dry cargo and similar ships, cracks are most frequently observed in the following stuctures: at joints of bulwark stanchions to deck;

at joints of hold frames to side stringers, and also in frame sections within a span and at frame supports, in particular, on ice class ships;

in forceastle structures (deck and side plating and framing).

On oil tankers and similar ships, cracks are most frequently observed in the following stuctures:

at joints of a vertical keel to transverse bulkheads;

at joints of side longitudinals to web frames, and also to transverse bulkheads;

at joints of floors in central tanks to longitudinal bulkheads (especially, to corrugated bulkheads);

at joints of longitudinal corrugated bulkheads to vertical webs, shelves: at the lower part of bulkheads and approximately at the middle of their height, as well as at welds connecting corrugations; in areas of welding of longitudinal bulkheads to the bottom;

at joints of a cross tie to a web frame;

in plating of the flat longitudinal bulkheads which separate ballast and cargo tanks (segregated ballast tanks, clean ballast tanks);

around the periphery of cutouts in deck plating in way of expanders, especially for scalloped framing. On bulk carriers and oil-bulk-ore carriers, cracks are most frequently observed in the following stuctures: at joints of a lower stool to inner bottom plating and hopper tank sloping plating;

at joints of carlings to the plating of an upper stool;

in way of welding of hopper tank sloping plates to transverse bulkhead corrugations;

at the stool shelf plate where laminar cracking of metal is noted;

.5 to be examined are the closing appliances of openings;

.6 to be examined, as far as practicable, are sealing arrangements of equipment components penetrating watertight bulkheads.

**2.2.2.3.2** The recommendations on the examination of the hull by hammering its components.

Hammering of hull structures may be used in any types of surveys at the discretion of the Surveyor. The hammer test for suspect areas does not substitute thickness measurements in special/intermediate surveys, but it is only the method of survey which supplements those used by the Register Surveyor and extends the Surveyor capabilities.

- **2.2.2.4** Thickness measurements and deformations shall be carried out to the extent sufficient to assess the levels of general corrosion, local corrosion and pitting corrosion, as well as of the deformations in the areas subjected to a close-up survey.
- **2.2.2.5** At the annual survey of ships aged over 20 years and having no documents on renewal of their hulls, the provisions in 2.2.2.3.1, as well as survey of the hull structures by hammering its components are mandatory.

# 2.2.3 Ship's arrangements, equipment and outfit.

## 2.2.3.1 Rudder and steering gear.

The scope of the annual survey of the rudder and steering gear is given in 2.2.3.1, Part II "Survey Schedule and Scope" of the Rules.

In the survey performance, the Surveyor shall be guided by the RS-adopted methods of examinations, measurements and verifications of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

No additional instructions and recommendations on the survey performance are needed.

## 2.2.3.2 Anchor arrangement.

The scope of the annual survey of the anchor arrangement is given in 2.2.3.2, Part II "Survey Schedule and Scope" of the Rules.

In the survey performance, the Surveyor shall be guided by the RS-adopted methods of examinations, measurements and verifications of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

No additional instructions and recommendations on the survey performance are needed.

# 2.2.3.3 Mooring arrangement.

The scope of the annual survey of the mooring arrangement is given in 2.2.3.3, Part II "Survey Schedule and Scope" of the Rules.

In the survey performance, the Surveyor shall be guided by the RS-adopted methods of examinations, measurements and verifications of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

No additional instructions and recommendations on the survey performance are needed.

## 2.2.3.4 Towing arrangement.

The scope of the annual survey of the towing arrangement is given in 2.2.3.4, Part II "Survey Schedule and Scope" of the Rules.

In the survey performance, the Surveyor shall be guided by the RS-adopted methods of examinations, measurements and verifications of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

No additional instructions and recommendations on the survey performance are needed.

- **2.2.3.5** Special emergency towing arrangement.
- **2.2.3.5.1** The scope of the annual survey of the special emergency towing arrangement is given in 2.2.3.6, Part II "Survey Schedule and Scope" of the Rules.

In the survey performance, the Surveyor shall be guided by the RS-adopted methods of examinations, measurements and verifications of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

No additional instructions and recommendations on the survey performance are needed.

- **2.2.3.6** Closing appliances for openings in shell plating, decks, superstructures and bulkheads; hatch covers and hatch coamings.
- **2.2.3.6.1** The scope of the annual survey of the closing appliances for openings, of hatch covers and hatch coamings is given in 2.2.3.5 and 2.2.3.8, Part II "Survey Schedule and Scope" of the Rules.
- **2.2.3.6.2** At annual survey of cargo hold hatch covers, emphasis shall be placed upon the technical condition of means ensuring the tightness of hatch covers (around the entire perimeter and between hatch cover panels), of their securing devices, chain or wire rigging including sheaves, guide rails and wheels, warping drums of the deck machinery used to drive the hatch covers; locks, drainage system, hydraulic drives for hatch covers closing and cleating, stops preventing the covers shifting.

Where portable beams, pontoon hatch covers, as well as wooden covers are fitted, attention shall be given to the technical condition of structures, sockets for portable beams and their securing, cover hoisting pads and their locations, guide plates and brackets, water drain arrangements, hatch coamings and their supports, as well as to the functioning of mechanical components of covers.

**2.2.3.6.3** Tightness tests for hatch covers may be required at all the types of surveys where the tightness is questioned.

Tightness tests shall be carried out with a water jet from a nozzle having an outlet diameter of at least 12 mm at a hose pressure, as a minimum, equal to at least  $2 \times 10^5 \text{ Pa}$ . Hosing shall be carried out from a distance of not more than 1,5 m with the jet perpendicular to the surface tested. The tests conducted by specialized bodies recognized by the Register may be allowed when using ultrasonic equipment in accordance with the requirements of Section 7, Part I "General Provisions" of the Rules, as well as other testing methods approved by the Register.

- **2.2.3.6.4** Tightness tests for cargo hold hatch covers for ships aged over 20 years shall be conducted at each annual survey.
  - **2.2.3.7** Cargo securing equipment.
- **2.2.3.7.1** The scope of the annual survey of the cargo securing equipment is given in 2.2.3.7, Part II "Survey Schedule and Scope" of the Rules.
- **2.2.3.7.2** On ships engaged in international voyages and being subject to the SOLAS-74/78/88 Convention requirements, the availability on board of the Cargo Securing Manual approved by the Flag State MA, the Register or another organization authorized by that MA shall be checked.
- **2.2.3.7.3** The availability of documents on board for reusable fastening facilities (RFF)<sup>1</sup> and their technical condition are checked only of those which shall be used for the forthcoming securing of cargoes at the time of survey.
  - 2.2.3.7.4 The RFF documents are verified with due regard for the following:
- .1 for the lashing and securing RFF, having no Register Certificate of Conformity or IACS ACS Certificates, which may be identified with Manufacturer's catalogues and certificates, reporting (operational) documentation and the ship Cargo Securing Manual, the Certificate of Test and Survey of Reusable Fastening Facilities (RFF) for General Cargoes (Form 5.1.7) is drawn up on the basis of external examination without testing;

<sup>&</sup>lt;sup>1</sup>Hereinafter referred to as "RFF".

.2 the lashing and securing RFF, which cannot be identified as specified in 2.2.3.7.4.1, shall be tested at the utmost loading (until their failure) so that the safe working loading (SWL) will be ascertained at the rate of 2 per cent (at least 2 pcs.) from the number of the same type RFF. The RFF tested at the utmost loading are not subject to repairs.

The tests shall be carried out under the Register direct supervision or by Register-recognized laboratories, or by Register-recognized RFF manufacturers.

For securing RFF, the safe working loading may be determined according to the results of test measurements of RFF elements.

**2.2.3.7.5** The Shipowner is entitled to replace the RFF specified in the Cargo Securing Manual with those of the same type (e.g. chain lashings may be replaced by rope or band and vice versa) having a SWL not less than that of the RFF being replaced. The changes associated with RFF replacements shall be recorded in the Cargo Securing Manual and approved by the Register in RFF surveys.

## 2.2.4 Fire protection.

- **2.2.4.1** At annual survey of a ship and fire protection items, it shall be externally examined and tested in operation the complete equipment and technical condition of fire extinguishing systems, fire detection and alarm systems, and remote control of fire doors in order to determine their serviceability and readiness for operation at short notice.
  - 2.2.4.2 The scope of survey set forth in 2.2.4, Part II "Survey Schedule and Scope" of the Rules.

Additional instructions and recommendations on tests in operation and examinations of fire hoses, couplings and hose nozzles, foam concentrates, self-contained breathing apparatuses and portable fire extinguishers, which are carried out during annual and special surveys, are given in 2.2.4.2.1 to 2.2.4.2.4 below.

- 2.2.4.2.1 Recommendations on survey of fire hoses, couplings and hose nozzles.
- **2.2.4.2.1.1** Agreed and acceptable for the Shipowner measures shall be taken on all ships for identifying fire hoses to ensure their supervision on a given ship. The identification may be provided by any acceptable way: marking with durable paint, stamping, labelling, etc.
- **2.2.4.2.1.2** Fire hoses shall be made of wear-resistant material approved by the Maritime Administration. Such hoses shall be provided for ships constructed on or after 1 February 1992; on ships constructed before 1 February 1992, these hoses shall be provided during regular replacement.

In particular, such hoses imply the ones with double-faced polymeric coating, and also those made on the basis of chloroprene latex.

Canvas, flax and jute hoses are liable to replacement on due date.

Natural latex-based hoses with film resistance of  $+70\,^{\circ}\text{C}$  are fit for use in medium latitudes only. New fire hoses shall have the Certificate of Conformity issued by the IACS member's technical supervision body, or the certificates of Maritime Administration-certified manufacturers on conformity to the requirements of SOLAS-74/78/88.

With the replacements as the above, the area and routes of navigation of a particular ship and the results of technical supervision over the given outfit shall be taken into account.

**2.2.4.2.1.3** During surveys, special attention shall be given to a material of couplings and fire hose nozzles bearing in mind that:

on oil tankers carrying oil products with a flash point below 60 °C, on gas carriers and chemical tankers, these items made of steel and other sparking alloys are not allowed;

on all the other ships, these items made of any alloys, including the aluminium ones (which have a durable external and internal anticorrosion coating), may be located both on open decks and in internal spaces;

the items made of aluminium alloys and having no anticorrosion coating shall be replaced by the items made of materials, which are resistant to sea exposure, basing on the survey results and by the dates agreed.

**2.2.4.2.1.4** When estimating the scope of the inspection of fire hoses at annual and special surveys, the dates of their delivery on board, the term of storage conditions in stock and their locations shall be taken into account, and the external examination of the surface, binding and junk-rings condition shall be included in the scope of the inspection.

Hydraulic tests shall be conducted under working pressure of the water fire main system. The necessity to perform such tests shall be ascertained in each particular case with due regard for the external examination results. Hoses shall be tested at least once in three years, as well as during special survey (in case of their compliance with the requirements of reg. II-2/10.2.3 SOLAS-74/78/88). The existing fire hoses, which do not meet these requirements, are liable to an external examination and hydraulic tests on the annual basis prior to their replacement by the corresponding ones.

The survey results shall be recorded in the Check-list (Form 6.1.01) or, where applicable, in reports (Forms 6.3.7 and 6.3.12). In issuing the above mentioned reports, the following documents may be considered:

Documents issued by specialized stations recognized by the RS, IACS members or Flag State MA (including special fire stations);

the ship crews recognized by the RS for the inspection performance in accordance with the manufacturer instructions.

- **2.2.4.2.1.5** Lockers (boxes) for hoses are liable to external and internal examination in surveys for compliance with the requirements of 5.1.4.3, Part VI "Fire Protection" of Construction Rules and to additional examination of structural integrity, safety of locks, drainage and the presence of marking with IMO symbols.
- **2.2.4.2.1.6** Manufacturer's manual on the maintenance and testing of fire hoses shall be available on board ship.
  - **2.2.4.2.2** Recommendations on survey of foam concentrates.

At survey of foam concentrates onboard, it shall be ascertained that:

a foam concentrate used on the ship in the foam fire extinguishing system, in portable foam applicators shall be of approved type;

foam concentrate storage time does not exceed three years;

if three years have expired from the date of manufacture on the date of survey the valid document issued by a recognized laboratory confirming foam concentrate fitness for use shall be presented, and after that such confirmation shall be performed every year.

The confirming document for foam concentrate shall be issued based on the tests conducted according to the procedures set forth in the following IMO circulars:

MSC.1/Circ.1312 — Revised Guidelines for the Performance and Testing Criteria, and Surveys of Foam Concentrates for Fixed Fire-Extinguishing Systems;

MSC/Circ.798 — Guidelines for Performance and Testing Criteria and Surveys of Medium-Expansion Concentrates for Fire-Extinguishing Systems;

MSC/Circ.670 — Guidelines for the Performance and Testing Criteria and Surveys of High-Expansion Foam Concentrates for Fixed Fire-Extinguishing Systems.

The valid confirming document for foam concentrate shall include the following:

sedimentation;

pH value;

expansion ratio;

drainage time;

volumic mass.

Note. Circular MSC.1/Circ.1312 dated 10 June, 2009 supersedes circulars MSC/Circ.582 and Corr.1, and MSC/Circ.799.

- **2.2.4.2.3** Recommendations on survey of self-contained breathing apparatuses.
- 2.2.4.2.3.1 At survey of self-contained breathing apparatuses, it is necessary to assure that:
- .1 they are of the RS-approved type;
- .2 they contain sufficient supply of air (at least 1200 I);
- .3 on oil tankers, gas carriers and chemical tankers only apparatuses operating on compressed air are used;

- .4 check of an apparatus condition is carried out periodically at specialized firms (stations) which shall be marked in a record card;
  - .5 the number of apparatuses corresponds to that prescribed for such ship by the Flag State MA;
- .6 provision shall be made for spare charges or spare breathing apparatuses per each required self-contained breathing apparatus in the number complying with the requirements of SOLAS-74 (for the ships covered by the requirements of SOLAS-74 (refer to reg.11-2/17.1.2.2, if the keel laying date is from 01.09.1984 to 01.07.2002, or reg. 11-2/10.10.2.5, if the keel laying date or a similar stage of construction is on or after 1 July 2002)) or the RS rules requirements (for the ships not covered by the requirements of SOLAS-74 but covered by relevant 5.1.15 of Part VI "Fire Protection" of the Rules for the Classification and Construction of Sea-Going Ships, depending on the construction date, i.e. prior to 01.07.2002, or respectively, from 01.07.2002 and after the date). All air cylinders for the apparatus shall be interchangeable;
- .7 to ensure the fire drill all ships shall be fitted with the means of recharging breathing apparatus cylinders or required number of spare cylinders at least one set for each mandatory breathing apparatus shall be provided on board, unless additional spare cylinders are required by the shipboard safety management system (SMS);
- **.8** self-contained breathing apparatuses are kept ready for use in an easily accessible location that is permanently and clearly marked, and shown in the fire plans.
  - 2.2.4.2.3.2 The periodica! performance checks is established in accordance with the requirements of:
  - .1 the manufacturer's given in the Manual for breathing apparatus operation;
  - .2 the Flag State MA;
  - .3 the class society (if available);
  - .4 the International Conventions, Codes.

Note. If no requirements are available it is necessary to follow the requirements of Table 2.2.2.3.2.

Table 2.2.4.2.3.2 Minimum requirements for interval and volume of survey (refer to MSC.1/Circ.1432)

Type of survey	Ship type	Interval	Within responsibility of	Notes
Examine cylinder gauges to confirm they are in the correct pressure range	All	Weekly	Crew	
Inspection of the breathing apparatus	Oil tanker (chemical tanker and gas carrier) <sup>1</sup>	Monthly	Crew	
Inspection and test of the equipment		Annually	Recognized by RS or the Flag State MA service supplier, or manufacturer	
Check that all breathing apparatus face masks and air demand valves are in serviceable condition		Annually	Recognized by RS or the Flag State MA service supplier, or manufacturer	
Check that all breathing apparatus face masks and air demand valves are in serviceable condition	All	Annually	Recognized by RS or the Flag State MA service supplier, or manufacturer	Check that all breathing apparatus face masks and air demand valves are in serviceable condition
Perform hydrostatic testing of all steel self-contained breathing apparatus cylinders	All	Once every five years	Recognized by RS or the Flag State MA service supplier	Aluminium and composite cylinders shall be tested to the satisfaction of the Flag State MA

<sup>&</sup>lt;sup>1</sup>if not specified by the manufacturer, the Flag State MA or International Conventions, Codes.

- **2.2.4.2.4** Recommendations on survey of portable fire extinguishers.
- 2.2.4.2.4.1 Periodical examinations and maintenance of portable fire extinguishers are carried out at least once a year in accordance with manufacturer's instructions prepared in compliance with the requirements of recognized standards (the recognized international standard is ISO 7165:1999 "Fire-fighting Portable fire extinguishers Performance and construction", the re-cognized national one in the RF is GOST R 51057-2001 "Portable fire extinguishers General technical requirements Test methods") and with the instructions of Table 9.1.3 in Annex to the Improved Guidelines for Marine Portable Fire Extinguishers (refer to IMO resolution A.951(23)), and in addition:
- .1 at least one extinguisher of each type manufactured in the same year and kept on board ship shall be operationally tested under the Register technical supervision at intervals not exceeding 5 years;
- .2 all extinguishers together with propellent cartridges shall be hydraulically tested in accordance with the recognized standard, according to which the extinguisher is produced, or with the manufacturer's instruction at intervals not exceeding 10 years.
- **2.2.4.2.4.2** Maintenance and examination of extinguishers having no Register's approval may be carried out provided that the Register has preliminary considered technical documentation and singly approved them with issuing the Certificate (Form 6.5.30).
- **2.2.4.2.4.3** Maintenance and examination of extinguishers are carried out at the firms recognized by the Register for performaning survey and maintenance of portable extinguishers. In specific cases, examination and maintenance may be carried out at the firms, which have no Register's relevant recognition, but are recognized by the state competent authority, under the technical supervision of the Register Surveyor. In any case, the firm shall have available, and follow, the manufacturer's manual and have at its disposal equipment, replaceable parts, recommended extinguishing media, etc. needed for given type servicing according to the manufacturer's manual.
- **2.2.4.2.4.4** Recharge of extinguishers is carried out in accordance with the manufacturer's manual. The manual for recharging extinguishers shall be supplied by manufacturers and be available for use on board. For recharge shall be used only the extinguishing media approved for a specific extinguisher.
- **2.2.4.2.4.5** Reports on performance of the extinguishers examination are submitted to the Register's Surveyors on their demand. These shall show the date of examination, the type of maintenance carried out and whether or not a pressure test was performed.

# 2.2.5 Machinery installation.

- **2.2.5.1** At the annual survey of a ship, any changes among the items being parts of the machinery installation and the equipment of machinery spaces, their modifications, any changes in their location and layout, as well as intheir technical condition shall be identified.
- **2.2.5.2** The scope of the annual survey of the machinery installation is given in 2.2.5, Part II "Survey Schedule and Scope" of the Rules.
  - 2.2.5.3 At annual survey, the machinery installation items are subject to the following surveys:
  - .1 test in operation and external examination of the main and auxiliary machinery.

The Surveyor may reject testing the main and auxiliary machinery in operation taking into account the service life, previous survey results and details of the machinery operation;

.2 internal survey at due dates and external examination with testing steam boilers and pressure vessels in operation.

Heat exchangers are tested in operation with the associated machinery and systems;

.3 external examination and tests of systems and remote-operated valves in operation.

## 2.2.5.4 At annual surveys:

- .1 machinery space alarms are tested in operation;
- .2 documentation and brands certifying the performance of mandatory periodical checks of instrumentation by a competent authority are verified.

# 2.2.6 Ship systems and piping.

**2.2.6.1** The scope of an annual survey of the ship's service systems and piping is given in 2.2.6, Part II "Survey Schedule and Scope" of the Rules.

Carrying out surveys, the Surveyor shall follow the RS-adopted procedures for examinations, measurements and inspections of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

There are no any additional instructions and recommenations on the survey performance.

## 2.2.7 Electrical equipment.

**2.2.7.1** The scope of an annual survey of the electical equipment is given in 2.2.7, Part II "Survey Schedule and Scope" of the Rules.

Carrying out surveys, the Surveyor shall follow the RS-adopted procedures for examinations, measurements and inspections of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

There are no any additional instructions and recommenations on the survey performance.

## 2.2.8 Automation equipment.

**2.2.8.1** The scope of an annual survey of the automation equipment is given in 2.2.8, Part II "Survey Schedule and Scope" of the Rules.

Carrying out surveys, the Surveyor shall follow the RS-adopted procedures for examinations, measurements and inspections of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

There are no any additional instructions and recommenations on the survey performance.

#### 2.3 INTERMEDIATE SURVEY

**2.3.1** Intermediate survey shall be carried out either at or between the second and third annual surveys. The ships covered by the requirements for performance of intermediate surveys, as well as the scope of surveys of the items being supplementary to those which shall be surveyed in an annual survey, are given in 2.3, Part II "Survey Schedule and Scope" of the Rules.

Carrying out surveys, the Surveyor shall follow the RS-adopted procedures for examinations, measurements and inspections of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

There are no any additional instructions and recommenations on the survey performance.

#### 2.4 SPECIAL SURVEY

#### 2.4.1 General.

- **2.4.1.1** At special survey, it shall be ascertained that the technical condition and structural and composition modifications of the ship's hull, machinery, equipment and arrangements meet the requirements of the Rules for Construction.
- **2.4.1.2** The scope of the special survey of a ship is given in 2.4, Part II "Survey Schedule and Scope" and in the relevant sections of Part III "Additional Surveys of Ships Depending on their Purpose and Hull Material" of the Rules.
- **2.4.1.3** At special survey of a ship, the requirements of Part I "General Provisions" and the basic instructions on surveying the ships set forth in Section 1 of this Part are used.
- **2.4.1.4** The instructions and recommendations on performance of the special survey with regard to a ship and the individual items of technical supervision are given in the relevant chapters of this Section.

#### 2.4.2 Hull.

**2.4.2.1** At special survey of the ship, the hull structures shall be checked for compliance with requirements of the Rules, and the technical condition of the hull shall be determined in the term of its integrity, wear and damages with assessing their effect upon the overall and local strength where necessary.

- **2.4.2.2** The scope of an examination of hull structures, of residual thickness measurements and testing in the special survey is given in 2.4.2, Part II "Survey Schedule and Scope" of the Rules and in the relevant sections of Part III "Additional Surveys of Ships Depending on their Purpose and Hull Material" of the Rules.
- **2.4.2.3** Depending on the ship's type and age, carrying out surveys of hull structures, it is recommended to use the inspection procedures in 2.2.2.3 for the hull members being subject to intense wear due to the corrosive environment, sweating, insufficient ventilation and excessive humidity, and where technical maintenance during operation is impeded.
- **2.4.2.4** Special attention shall be paid to the structure areas with the drastic change of the ship's hull and longitudinals cross-section where cracking is likely to occur.
- **2.4.2.5** At survey of a bottom plating from the inside of cargo and ballast tanks of oil tankers and chemical tankers, consideration shall be given to the areas under suction branch pipes of cargo, stripping and bilge systems due to potential substantial wear, and also to the bottom areas under sounding pipes in tanks of all ships where graduated pole impacts may cause pits and indentations.
- **2.4.2.6** On ships having superstructures or deckhouses made of aluminium alloys, consideration shall be given to the areas where aluminium alloy and steel structures are mated, in connection with potential corrosive damage to the aluminium alloy structures and to the break of joints strength and tightness.
- **2.4.2.7** The upper edge of a sheer strake, the areas of its connection with a bulwark and the very bulwark shall be thoroughly inspected to detect potential cracks.

The areas of potential cracks on the upper deck shall be thoroughly inspected.

- **2.4.2.8** The technical condition of hull structures having wear, deformations and cracks is assessed in compliance with Annex 2 "Instructions for Determination of the Technical Condition, Renovation and Repair of the Hulls of Sea-Going Ships" to the Rules.
- **2.4.2.9** Where places of excessive corrosive wear are identified in survey, the Surveyor takes measures to ascertain the causes of such wear, and also provides the shipowner with the recommendations (if any) on their prevention.
- **2.4.2.10** Generally, the damages to hull members like holes, fractures, cracks, indentations, horse ribs and deflections are the result of ship's collisions or impacts to the pier, grounding or contact with the ground, impacts on shore facilities, ice navigation, as well as wave impacts. The hull damages with evident causes unknown are subject to a special examination to ascertain the probable structural deficiencies, to assess the members wear or the ship's improper operation (e.g. inadequate loading) which may result in ruptures, cracks or residual deformations. Such special examination is necessary in all the cases when the damages are in plenty or repeated.
- **2.4.2.11** Cracks in stressed members may be due to metal brittleness, and therefore when the cracks are detected, of which the cause cannot be explained by the action of external excessive loads or by imperfect design, the chemical analysis of the damaged member metal shall be carried out and its mechnical properties shall be determined. The Branch Office for in-service supervision shall prepare for RHO a summary on all cases of damage recurring on board particular ships or typical damage to serial ships.
- **2.4.2.12** The occurrence of cracks (especially if in plenty or repeatedly) or ruptures of members, as well as of transverse horse ribs in the upper deck and bottom amidships, which cannot be attributed to excessive local loads, may result from the ship's inadequate general (longitudinal) strength. The general strength decrease may also be due to an excessive wear of hull longitudinals. The Branch Office for inservice supervision shall prepare for RHO a summary on all cases of damage recurring on board particular ships or typical damage to serial ships.
- **2.4.2.13** The sides and bottom forward may be damaged by wave impacts due to slamming at an inadequate forward draught and an excessive speed in the seas. Where such damages are identified, the forward draught and bottom strengthenings forward shall be verified for compliance with the Rules requirements.

In certain cases, hull strengthening may be necessary.

All the cases of the damages caused by slamming shall be reported by the Branch Office to RHO and the RS Branch Office for in service supervision.

**2.4.2.14** In testing hull structures for tightness, the following preparatory work shall be carried out: surfaces of the structures to be tested shall be thoroughly dried and cleaned, welds shall be slag free, fillets

of the structures mated shall be dried. Devices and arrangements, which monitor a test pressure of water or compressed air shall be verified by competent bodies.

Table of hull tightness tests is given in Annex 10.

## 2.4.3 Ship's arrangements, equipment and outfit.

## 2.4.3.1 Rudder and steering gear.

The scope of the special survey of the rudder and steering gear is given in 2.4.3.3, Part II "Survey Schedule and Scope" of the Rules.

In the survey performance, the Surveyor shall be guided by the RS-adopted methods of examinations, measurements and verifications of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

No additional instructions and recommendations on the survey performance are needed.

#### 2.4.3.2 Anchor arrangement.

The scope of the special survey of the anchor arrangement is given in 2.4.3.4, Part II "Survey Schedule and Scope" of the Rules.

In the survey performance, the Surveyor shall be guided by the RS-adopted methods of examinations, measurements and verifications of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

During anchor chain measurement, report on the results of anchor chain measurement shall be attached to the Ship's Survey Statement (Form 6.1.03), in case the measurement results are not enclosed to the report on ship's survey.

No additional instructions and recommendations on the survey performance are needed.

## **2.4.3.3** Mooring arrangement.

The scope of the special survey of the mooring arrangement is given in 2.4.3.5, Part II "Survey Schedule and Scope" of the Rules.

In the survey performance, the Surveyor shall be guided by the RS-adopted methods of examinations, measurements and verifications of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

No additional instructions and recommendations on the survey performance are needed.

#### **2.4.3.4** Towing arrangement.

The scope of the special survey of the towing arrangement is given in 2.4.3.6, Part II "Survey Schedule and Scope" of the Rules.

In the survey performance, the Surveyor shall be guided by the RS-adopted methods of examinations, measurements and verifications of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

No additional instructions and recommendations on the survey performance are needed.

## **2.4.3.5** Emergency towing arrangement.

**2.4.3.5.1** The scope of the special survey of the emergency towing arrangement is given in 2.4.3.6, Part II "Survey Schedule and Scope" of the Rules.

In the survey performance, the Surveyor shall be guided by the RS-adopted methods of examinations, measurements and verifications of equipment and systems to the extent of the Rules requirements with due regard for the manufacturer's recommendations.

No additional instructions and recommendations on the survey performance are needed.

- **2.4.3.6** Closing appliances of openings in shell plating, decks, superstructures and bulkheads; hatch covers and hatch coamings.
- **2.4.3.6.1** The scope of the special survey of the closing appliances of openings in shell plating, of hatch covers and hatch coamings is given in 2.4.3.2, Part II "Survey Schedule and Scope" of the Rules.
- **2.4.3.6.2** During survey of outer closures for the openings intended for vehicles loading and unloading (ramps), emphasis shall be placed upon:

the condition of bearing parts of metal ramp structures (presence of plastic deformations, cracks; welds condition);

the condition of cargo ropes and blocks of which the technical condition shall be assessed with use of the wear standards specified in 10.6 of the Rules for the Cargo Handling Gear of Sea-Going Ships;

the operation of ramp drives;

the operation of end switches at limiting ramp positions, the condition of the stops locating the ramp secured for sea;

the condition of rubber seals and the access opening coaming, of cleating arrangements.

**2.4.3.6.3** Recommendations on testing the closures for tightness are given in 2.2.3.6.3.

## 2.4.3.7 Signal masts.

The scope of a special survey of signal masts and their rigging is given in 2.4.3.7, Part II "Survey Schedule and Scope" of the Rules.

No additional instructions and recommendations on the survey performance are needed.

## **2.4.3.8** Equipment of bulk cargo holds.

The scope of the special survey of the equipment of bulk cargo holds is given in 2.4.3.8, Part II "Survey Schedule and Scope" of the Rules.

No additional instructions and recommendations on the survey performance are needed.

## **2.4.3.9** Emergency outfit.

The scope of the special survey of emergency outfit is given in 2.4.3.9, Part II "Survey Schedule and Scope" of the Rules.

No additional instructions and recommendations on the survey performance are needed.

#### **2.4.3.10** Cargo securing equipment.

The scope of a special survey of cargo securing equipment is given in 2.4.3.10, Part II "Survey Schedule and Scope" of the Rules and in 2.2.3.7 of this Section.

No additional instructions and recommendations on the survey performance are needed.

## 2.4.4 Fire protection.

**2.4.4.1** At special survey of a ship and items of fire protection, the make-up of these latter, their completeness, structure, arrangement and installation, as well as their regulated characteristics shall be verified for compliance with the requirements of the Rules for Construction.

Technical condition of the items shall be confirmed by external examinations, tests in operation, internal surveys and hydraulic tests.

- **2.4.4.2** The scope of a special survey of ship's fire protection items is given in 2.4.4, Part II "Survey Schedule and Scope" of the Rules.
- **2.4.4.3** Instructions and recommendations on tests in operation and examinations of fire hoses, couplings and hose nozzles, foam concentrates and self-contained breathing apparatuses, which are carried out during annual and special surveys, are as required in 2.2.4.2.1 to 2.2.4.2.3.
- **2.4.4.4** In addition to the above in 2.4.4.3, instructions and recommendations on inspections, examinations and tests of fire-fighting systems and equipment which are carried out during ship's special surveys, are given in 2.4.4.4.1 to 2.4.4.4.3 below.
  - **2.4.4.4.1** Recommendations on surveying freon tanks.

## **2.4.4.1.1** Survey of freon 114B2 tanks.

The cases when the internal survey of freon 114B2 storage tanks is required, are given in 2.4.4.3.9, Part II "Survey Schedule and Scope" of the Rules.

Beginning from the third special survey on, a need for carrying out the internal survey and the hydraulic test of the tank is determined by the Surveyor according to the results of the external examination and thickness measurements of tank walls.

At survey, special attention shall be paid to the mounting seats of valve heads, valves, manhole covers and other locations where defects are most likely to occur: corrosive attack, cracks, etc. Where significant wear is detected, the residual thickness of the tank wall shall be measured. If a wear of tank walls averaged over a few measuremnts exceeds 10 per cent of the initial thickness, the tank shall be replaced or repaired.

**2.4.4.1.2** Survey of for freon 13B1 and freon 12B1 storage tanks (terms "halon 1301" and "halon 1211" are used in the text of the SOLAS-74/78/88 Convention, respectively).

The tanks shall undergo an internal examination and hydraulic tests after repairs, and also after discharge of freon if the tank is older than 5 years.

2.4.4.4.2 Recommendations on surveying a portable motor pump.

At survey of a motor pump used as an emergency fire pump on ships built before 1 September 1984, it shall be made certain that:

the complete set of the motor pump is maintained, i.e. suction and delivery hoses, hose nozzles, a distribution a branch coupling or connecting hoses are available; the type of hoses corresponds to hose used in water fire extinginshing systems fitted in the ship; tools, accessories and fitted in the ship manuals according to the manufacturer's specification are available;

where the motor pump is kept on deck, it is stored in a readily accessible special locker or box;

where the motor pump is kept in a room, the latter is enclosed with steel bulkheads and not adjacent to accommodation spaces or a machinery space, or is enclosed with A-60 type divisions separating it from the machinery space;

the engine is easily and quickly started;

the self-priming device is reliable in operation and water delivery with hose nozzles is ensured.

- **2.4.4.4.3** Recommendations on testing fire extinguishing systems, cylinders.
- **2.4.4.3.1** Thorough examination shall precede hydraulic tests of systems, and internal survey, hydraulic tests of cylinders and tanks. The items to be tested shall be in efficient working order. Following tests, the systems shall be thoroughly blown through with compressed air and tested in operation.
- **2.4.4.3.2** Hydraulic tests of carbon dioxide cylinders and their internal survey shall be carried out by the specialized stations recognized by the Register or national Administrations.
- **2.4.4.3.3** Fire extinguishing systems, piping and valves being parts thereof are tested in accordance with Table 2.4.4.4.3.3.

Testing of fire extinguishing systems, cylinders

Table 2.4.4.3.3

No.	Systems and assemblies to be tested	Hydraulic test pressure on board
1	Foam and water fire extinguishing systems (see also Section 20, Part VIII "Systems and Piping" of the Rules for the Classification and Construction of Sea-Going Ships):	
	.1 pipes	in operation
	.2 pipes of sprinkler systems	1 <i>p</i>
2	Pipes of a dry powder system	1 <i>p</i> (by air)
3	Carbon dioxide smoothering system	
3.1	High pressure systems:	
	.1 pipes from cylinders to release control valves; transit pipe lines passing through spaces (see 3.1.4.1.4	1,5 <i>p</i>
	Part VI "Fire Protection" of the Rules for the Classification and Construction of Sea-Going Ships)	
	.2 pipes from release control valves to nozzles, and pipes from safety devices	5 MPa
3.2	Low pressure system:	
	.1 pipes from a tank to release control valves	1,5 <i>p</i>
	.2 pipes from release control valves to nozzles, and pipes from safety devices	1p
4	Pipes and the scrubber of an inert gas system	1p (by air)
5	Freon 114B2 fire extinguishing system:	
	.1 pipe from tanks to nozzles	1,5 <i>p</i>
6	Pneumatic pipes	1,5 <i>p</i>
7	Cylinders, containers and tanks:	
	.1 pressurized, including cylinders without valves	
	.2 non-pressurized	in assembly with system
	.3 cylinders with screwed-in valves	_
8	Valves	_

Notes: 1. p is the maximum working pressure in the system, and for the carbon dioxide smoothering system, p is a design pressure of a cylinder or cylinder valve (whichever is less) or a tank, in MPa.

- 2. Valves as an assembly shall be tested for tightness of closing at a pressure of at least 1,25p. The valves of carbon dioxide cylinders shall be tested at the highest breaking pressure of protective diaphragms according to 3.8.2.6.1, Part VI "Fire Protection" of the Rules for Construction.
  - 3. The system shall be tested as an assembly on board after completion of all erection work.
- 4. Pipes of the water fire main system on ships of 500 gross tonnage and upwards (see 3.2.5.1, Part VI "Fire Protection" of the Rules for Construction) shall be tested at a pressure of at least 1 MPa.
- 5. The hydraulic test pressure for testing freon 114B2 storage tanks and pressure tanks of the sprinkler system shall be assumed 1,25p, but at least 0,2 MPa. The tanks inaccessible for an internal survey shall be tested at a pressure of at least 1,5p.

#### 2.4.5 Machinery installation.

- **2.4.5.1** At special survey of a ship, it shall be verified that the set of the machinery installation items and machinery space equipment, their design, layout, installation and specified technical characteristics (output, capacity, speed, etc.) continue to comply with the requirements of the Rules for Construction; the technical condition of the items shall be assessed as well.
- **2.4.5.2** The scope of the special survey of the machinery installation items is specified in 2.4.5, Part II "Survey Schedule and Scope" of the Rules.
- **2.4.5.3** The instructions and recommendations on the performance of inspections, examinations and tests of the machinery installation items during ship's special surveys are given below as follows:

thorough examination of the main and auxiliary machinery, shafting and propellers including openingup and dismantling of units and components if needed;

measurements of wear and clearances of units and components of the main machinery, their couplings and reduction gears, shaftings and propellers, as well as of the auxiliary steam turbines. Such measurements shall be conducted at the dates specified in maintenance manuals, during scheduled repairs, and also on the Surveyor's request;

test in operation and external examination of the main and auxiliary machinery;

internal survey and hydraulic test, as well as external examination, including the test in operation of steam boilers, heat exchangers and pressure vessels;

thorough examination and test in operation of systems and piping;

hydraulic tests (at due dates) of systems piping and steam lines, of bilge, ballast and other systems piping passing through fuel oil tanks without pipe tunnels, of independent tanks of a fuel oil system and a lubricating oil system, as well as of the valves of systems located below waterline.

2.4.5.4 Internal combustion engines and steam engines.

#### **2.4.5.4.1** Internal combustion engines.

The scope of a special survey of internal combustion engines is given in 2.4.5.2.1, Part II "Survey Schedule and Scope" of the Rules.

The following instructions and recommendations on a thorough examination of main and auxiliary internal combustion engines, on measurements of clearances and wear of units and components are given below:

.1 when examining the cylinder liners and blocks, the condition of their surfaces shall be assessed. The examination may be carried out through inspection holes in the block. Where it is impracticable, or a more thorough examination of the cylinder liner and block surfaces is needed, one of the liners shall be extracted on the Surveyor's request. Where substantial corrosive attack and/or cracking, which affect strength, are/is visible on the liner or block surface, all the liners shall be extracted and examined. In examination, emphasis shall be placed upon the detection of cracks in way of the top nave collar of the liners, in way of the exhaust ports, on the stiffening ribs and block seats.

Where necessary, the Surveyor may demand a non-destructive testing of suspect areas with use of one of the approved procedures. The cylinder block complete with the cylinder liners shall undergo a hydraulic leak test. The test pressure is taken equal to the working one in the cooling system;

- .2 when examining cylinder covers, and suction and exhaust valves, it shall be examined the condition of bearing surfaces, fastening studs, fuel injector seats, starting air valves and other valves, valve seats, surfaces on the side of displacement, water cooling passage and anodic corrosion protection (if sea water cooling is used). The covers shall undergo a hydraulic leak test;
- .3 when examining the pistons, the condition of cylin-drical surface, piston heads and piston ring grooves shall be checked. Where necessary, testing for defects is used;
- .4 when examining the crosshead pins and gudgeon pins, the condition of working surface, pin fit tightness and locking devices shall be checked;
- .5 when examining the piston rods and their stuffing boxes, the condition of working surface shall be checked and measurements shall be made;
- .6 when examining the connecting rods, it shall be checked that they are free of nicks and cracks, especially in areas of the maximum stress concentration (transitions of the rod to the top end and the

bottom end), as well as in way of the toothed joint of the connecting rod bottom end. The condition of an antifriction lining of crosshead, bottom-end and main bearings or shells is checked.

For the connecting rods with thin-walled shells of bottom-end bearings, which have the toothed joint of a bottom end, the seat geometry of the bottom-end bearing and interference thereof shall be checked, the toothed joints shall be tested for defects and checked for contact by blueing.

For engines having over 50000 running hours or on the Surveyor's request, as well as with due regard for the Manufacturer's recommendations, the toothed joint of the connecting rod bottom end shall be checked with use of an approved method of non-destructive testing;

.7 when examining connecting rod bolts, the condition of mounting surfaces and thread depression of the "bolt — nut" pair, bolt fit tightness, the fit of nuts and heads to bearing surfaces, locking devices and bolts elongation shall be checked.

Close-up survey of the connecting rod bolts shall be necessary where scoring of the "piston — liner" pair took place and the engine operated at a speed, which exceeded significantly the rated one.

Connecting rod bolts are replaced after the expiry of the operational period in accordance with the Manufacturer's manual or after 20000 running hours if the data on their elongation is unavailable. The connecting rod bolts of four-stroke diesels and of the crossheads of two-stroke double-acting engines are checked by the RS-approved method for lacking fatigue cracks and residual deformations in the following cases:

in accordance with the diesel Manufacturer's recommendations and manual on maintenance; after 20000 running hours of connecting rod bolts service; in questionable cases.

For low-speed engines with the number of revolutions < 250 rpm, the measurements may be omitted during the first special survey. In this case, the relevant documents shall be demonstrated to the effect that all preventive and scheduled routine maintenance prescribed by the operation manual and the Rules for the Technical Operation, has been carried out within the specified time, and the control test results shall evidence that the engines are in good working order.

The shipowner shall submit a relevant report on the control test results to the Surveyor;

.8 when examining the crankshafts, the condition of the working surfaces of crank pins and main journals, of the working and non-working surfaces of the crankshaft, the fitting of crank pins and main journals in built-up crankshafts against centre-pops and marks are checked, as well as the condition of crank webs. Where needed, the condition of crank pins and main journals is checked by the approved methods of non-destructive testing.

Crank web clearances shall not exceed the standards specified by the Manufacturer.

Where a heavy flywheel is mounted on the crankshaft as a balance weight, crank web clearances shall be measured taking into account the flywheel effect. In all cases, the fit of all main journals to lower bearing shells shall be ensured;

.9 the condition of balance weight fixation on crankshafts and engine flywheel shall be checked.

Fixation and torsional vibration damper condition and antivibrators shall be checked. The condition of the dampers is assessed in accordance with an operation manual and/or with due regard for the following:

where necessary, the serviceability of spring dampers is restored by the replenishment or replacement of a set of worn-out (failed) springs corresponding to those being replaced. No additional investigation is needed after restoration;

the serviceability of viscous dampers with the expired service life regulated by the Manufacturer is determined in accordance with the Procedure for Diagnosing and Determining the Residual Lifetime of Silicone Dampers of Marine Internal Combustion Engines (see Annex 38) or is evidenced by submitting the documented results of the previous control test. In so doing, the recommendations on the dates of follow-up tests or the replacement of dampers shall be taken into account.

Where check is carried out with the use of an alternative procedure (without assessing the residual lifetime), the dampers, complying with the RS requirements, are allowed for further use with checking at the next special survey. After repairs or replacement of a faulty damper or an antivibrator with their modifications essentially affecting their damping or elastic and mass characteristics, as well as after the damper removal (running without a damper), jamming or release of an internal ring, torsional vibration shall be measured. In this case, if the damper is adjusted to motor oscillations, measurements may be carried out with the shafting disengaged or at the zero pitch of a CPP, whichever is appropriate.

The renovation (repairs) of dampers and antivibrators shall be carried out by the Register-recognized Manufacturer according to the approved technical documentation (excepting the standard sets of springs where Manufacturer's manual is used);

.10 when examining main, bottom-end and head bearings, it shall be checked the adherence and thickness of an antifriction layer (for thin-walled multilayer bearing shells, it shall be additionally checked an interference according to the specifications for engine repairs or the Manufacturer's manual), the condition of a working surface, fillets, cooling slots, oil grooves and channels, locking devices preventing shells from turning, as well as the fit of bearings to their seats. The fit of main journals is checked by rolling the shells out by agreement with the Register Surveyor and, if necessary, when a crankshaft is lifted. Isolated cracks on babbit shell lining (excepting closed cracks), provided that the flaking and detachment of babbit are lacking, may, at the Surveyor's discretion, be ignored and the bearings may be accepted for further use.

Bearings with the local detachment of a lining layer in way of cooling slots may, at the Surveyor's discretion, be accepted for further use;

- .11 when examining parallel guides and sliders, the condition of working surfaces, oil grooves and channels, the thickness of an antifriction layer shall be checked;
- .12 when examining a camshaft and its bearings, the condition of the working surfaces of bearings and shaft journals, the fit tightness and the condition of the working surfaces of cam plates and rollers shall be checked. If the camshaft is a complex structure the condition of its coupling is checked by one of the approved methods of non-destructive testing;
- .13 when examining the camshaft and mounted machinery gear, the condition of the working surfaces of teeth and their run-in is checked; as applied to a chain gear, it shall be checked the condition of the working surfaces of chain rollers and sprocket teeth, and the condition of chain links, as well as the chain elongation;
- .14 when examining exhaust-gas turbosuperchargers, the condition of the turbine and compressor casing components, nozzle diaphragm, rotor, turbine and compressor impellers, turbine blades, blade attachments, journal bearings, journal-and-thrust bearings, diffusers, and labyrinth seals shall be checked. The position of the rotor, its axial float, the axial and diameter clearances of critical components shall be checked in accordance with the Manufacturer's manual/directions and submitted to the Surveyor in the form of measurement sheets and tables.

When examining the exhaust gas turbosupercharger blades, in questionable cases, it is checked by an approved non-destructive testing procedure to detect cracks.

The reciprocating scavenging pumps are subject to an examination of their cylinders, pistons, rods, valves and drives; the rotary scavenging pumps, to an examination of their casings, rotors, seals, drives, synchronizers, bearings and reversing dampers;

.15 when examining bed plates, tie rods, columns and crankcases, it shall be checked the lack of cracks, joint leakages, loosening of bolts and foundation chocks, and the condition of absorbers. If necessary, the Surveyor may require a non-destructive testing procedure of suspect areas using one of the approved procedures.

Tightening of tie rods is checked against the Manufacturer's standards;

- .16 the setting of safety valves mounted on engines (on crankcase inspection holes, charging air receivers, on a manifold supplying starting air from the master starting valves to the cylinder starting valves, on cylinder covers, high-pressure fuel-oil pumps) shall be checked on a test bench. The setting check results shall be submitted to the Surveyor;
- .17 when examining the telescopic or hinged joints of piston cooling system, emphasis shall be placed upon a condition of interacting surfaces.

#### **2.4.5.4.2** Steam engines.

The requirements for survey of steam engines (main and auxiliary) are deleted (see 2.4.5.2.2, Part II "Survey Schedule and Scope" of the Rules).

2.4.5.5 Steam turbines and gas turbines.

#### **2.4.5.5.1** Steam turbines.

The scope of a special survey of steam turbines is given in 2.4.5.3.2, Part II "Survey Schedule and Scope" of the Rules.

The following instructions and recommendations on a thorough examination of steam turbines, on measurements of clearances and wear of units and components are given below:

- .1 when surveying turbine casings, the tightening of the bolts fastening turbines to their foundations as well as the tightness of wedges fit shall be checked. To be surveyed are guide blades, diaphragms, nozzle boxes, casing split planes, distribution valves and maneuvering gear;
- .2 where defects evidencing possible rotor deflection have been detected during its survey, the rotor shall be tested on a balancing machine and the defects shall be rectified. When examining the rotor lifted, emphasis shall be placed upon the fit of discs, the detection of cracks thereon in way of the cross-sections transition and the fastening of balance weights. Examining torsion shafts, attention shall be drawn to potential cracks. In doubtful cases a check shall be carried out by an approved non-destructive test procedure;
- .3 when examining the turbine working blades for crack detection, in doubtful cases, a check shall be carried out by an approved non-destructive testing procedure. When replacing working blades (rotor reblading being carried out), the procedure specified by the Manufacturer shall be observed. After replacement of working blades, shrouds, lashing wires and after shaft straightening, the dynamic balancing of the rotor is carried out. The lashing wire and shrouds shall have no fractures and cracks in way of soldering and riveting. No backlash is allowed for blades in places of their securing and its elimination by caulking is prohibited;
- .4 when examining carrier and thrust bearings, their liners and segments shall be taken off, cleaned and washed. The condition of working surfaces and the bearings fit to seats shall be checked. The white metal of bearings shall be free of cracks, lags, scores and fusions. Minor defects (chafing, fine scratching, etc.) may be corrected by scraping provided that bearing clearances therewith are within tolerable limits;
- .5 the diaphragms shall be free of cracks and other damages. No damages are allowed in way of blade securing.

Fitting the diaphragm in its position, thermal expansion shall be allowed for;

.6 the sealing segments shall be free of significant wear which causes the clearances exceeding tolerable limits. Sealing tongues shall be straightened and ribbed. In carbon seals, significant radial clearances shall be taken up by filing down butts. In a matched ring, the segment butts shall be snugged one against other.

## **2.4.5.5.2** Gas turbines.

The scope of a special survey of gas turbines is given in 2.4.5.3.3, Part II "Survey Schedule and Scope" of the Rules.

The instructions and recommendations on a thorough examination of the working blades of turbines and compressors, of plain bearings, diaphragms and glands are similar to those in 2.4.5.5.1 of this Chapter for steam turbines.

The following additional instructions and recommendations on a thorough examination of gas turbines, on measurements of clearances and wear of units and components, as well as on the operation test of starting, reversing and maneuvering characteristics of a gas turbine installation are given below:

.1 when surveying the casings of turbines and compressors, it shall be examined/surveyed are guide blades, diaphragms, nozzle boxes, casing split planes, foundation or frame fastenings, the condition of absorbing components.

Hydraulic testing of water cooling chambers of turbine casings is to be carried out at the pressure specified in the technical documentation of the turbine Manufacturer;

- .2 where the defects evidencing a possible rotor deflection are found during a survey of turbine and compressor rotors, the rotors shall be tested on a balancing machine, and the defects shall be rectified. Emphasis shall be placed upon crack detection on the turbine and compressor discs, on the condition of fastenings of built-up rotors. When examining torsion shafts, attention shall be paid to the detection of cracks and wear in shaft-coupling joints and turbine shaft-toothed gear joints. If the rotors and shafts were straightened or turned, they shall be dynamically balanced;
- .3 the readiness of roller bearings for further use shall be assessed reasoning from their service life and the results of an external examination. No cracks, corrosion, dents and other defects affecting bearing performance are allowed on the working surfaces of outer and inner races, separators, balls and rollers;
- .4 the flame tubes of combustion chambers shall be free of cracks unless their presence and size are specified in the Manufacturer's maintenance manuals for gas turbines. The internal surfaces of combustion chambers shall be submitted for survey in a clean condition;
- .5 when examining air trunks, unlocked fasteners and the spots free of an anticorrosive coating shall be revealed, and the fastening of filtering elements and protective nets shall be checked;
- .6 to evaluate starting characteristics, provision shall be made for determining the starting time, for three successive starts, restarting with a non-stopped rotor, putting on the "crash stop" mode;
  - .7 reversing characteristics shall be checked in the following successive modes:

full ahead — full astern (from the "sea" mode),

full ahead — full astern (from the "harbour" mode),

half ahead — full astern (from the "sea" mode),

half ahead — full astern (from the "harbour" mode),

idling speed — full astern and vice versa (only in the "harbour" mode);

- .8 maneuvering characteristics shall be checked by the following successive changes:
- idling run dead slow ahead dead slow astern dead slow ahead slow astern slow ahead half ahead half astern full ahead full astern full ahead;
- .9 where remote control is available, the start, shutdown, maneuvers and reverses of gas turbines shall be effected from the local and remote control stations. To be simultaneously checked are the functioning of local and remote control stations interlocking, the control change-over between these two stations, the coincidence of instrument readings at the different stations and correctness of the gas temperature readings

## 2.4.5.6 Gears and couplings.

before the turbine.

The scope of a special survey of gears and couplings is given in 2.4.5.4, Part II "Survey Schedule and Scope" of the Rules.

The following instructions and recommendations on a thorough examination of gears, reduction gears and couplings, on measurements of clearances and wear of units and components are given below:

- .1 when surveying the casings of tooth gears, reduction gears and couplings, it shall be checked the condition of fastening to foundations (for couplings, such check depends on their design and type), the tightness of gaskets (wedges) fit and the tension of foundation fastening bolts;
- .2 where the defects evidencing a deformation (deflection) of shafts are detected during surveying tooth gears, reduction gears and couplings (where the latter are fitted with shafts according to their design), they shall be checked on a balancing machine and the defects shall be eliminated;
- .3 the condition of the working surfaces of gear wheels and pinions, and the tooth (gear) contact shall be checked. For ahead gear wheels, fitness shall make up at least 90 per cent longways and at least 60 per cent breadthways of an active profile, and for astern gear wheels, fitness shall make at least 80 per cent longways and at least 50 per cent breadthways of an active profile. Where the fitness is unsatisfactory, position of gear wheels and pinions shall be checked. Gapping of tooth meshes also shall be checked. When assessing the tooth (gear) fitness and the gapping of meshes, the recommendations and standards specified in the Manufacturer's technical documentation and maintenance manuals shall also be followed;
- .4 minor defects of the working surfaces of teeth, such as shallow scratches, fine dents and shallow pitting (non-propagating), the isolated cracks on the babbitting (other than the closed cracks) when no babbit flaking and spalling exists, as well as when of local separation of the lining layer takes place in way

of the cooling grooves, the minor defects not affecting coupling performance may be ignored and the gearings and/or couplings may be accepted for further operation;

- .5 when surveying the composite constructions of gear wheels and other essential gear elements, the condition of their fastening and locking, the fit tightness of units, as well as absence of cracks in units and weld seams shall be checked. Performance of a lubricating system of gear wheels and pinions shall also be checked:
- .6 the condition of the working surfaces of sleeve bearings and their fit tightness to seats shall be checked. To be checked is the condition of roller bearings. These latter shall be replaced when their service life specified in a maintenance manual expires;
- .7 when surveying couplings, the fit of half-couplings on shafts and of connecting bolts in holes shall be checked; for dismantled couplings (depending on a coupling type), the working surfaces of cams, the intermediate components, elastic elements, packs of steel discs, tooth- half-couplings and liners, gear wheels and pinions, spring elements shall be examined; when surveying hydraulic couplings the pump and turbine rotors, shafts, bearings, hydraulic units, valves shall be checked. For dismantled electromagnetic couplings the electromagnetic units, friction units and gear wheels shall be examined;
- **.8** when examining the lubricating oil system of gears and couplings, emphasis shall be placed upon a nature of filter clogging.

## 2.4.5.7 Auxiliary machinery.

The scope of a special survey of auxiliary machinery is given in 2.4.5.5, Part II "Survey Schedule and Scope" of the Rules.

The following instructions and recommendations on a thorough examination of auxiliary machinery are given below:

.1 when surveying auxiliary machinery of any purpose, the condition of an antifriction lining of sleeve bearings, the condition of roller bearings and their seats on shafts shall be checked.

Roller bearings shall be replaced when their service life, specified in the Manufacturer's technical documentation and maintenance manuals, has expired, and where the defects preventing their further service have been detected;

- .2 when surveying centrifugal and gear pumps, the condition of keys and keyways (key beds) on shafts, impellers and pinions shall be checked. Centrifugal, screw and gear pumps shall be checked for the absence of damages to impellers, screws and pinions due to the contacts with pump casings and screw housings or for the absence of traces due to touching pump casings and screw housings during the pump operation;
- .3 when surveying ejectors, the information on the proper installation of a nozzle relative to a diffuser shall be submitted to the Surveyor. In this case, the Surveyor shall assure himself that distance throat the nozzle outlet section and diffuser throat shall comply with the value specified in Manufacturer's technical documentation and maintenance manuals for ejectors;
- .4 when surveying the motors and pumps of the hydraulic drives of auxiliary machinery, the results of the shaft alignment for hydraulic pumps and electric motors shall be submitted to the Surveyor. In this case, the Surveyor shall assure himself that the values of misalignment and axis breaks of shafts and coupling boxes shall not exceed values specified in the Manufacturer's technical documentation and maintenance manuals for auxiliary machinery and hydraulic drive systems;
- .5 during survey, the Surveyor shall follow the Register-adopted procedures for examinations, measurements and checks of equipment and arrangements to the extent of the Rules requirements with due regard for the Manufacturer's recommendations.

## 2.4.5.8 Ship boilers.

Survey of ship's boilers is an integral part of a special survey and shall be carried out in compliance with 2.9, Part II "Survey Schedule and Scope" of the Rules.

The instructions and recommendations on internal survey, hydraulic tests and examination performance for ship's main and auxiliary boilers are given below in 2.4.5.8.1 to 2.4.5.8.2.

#### 2.4.5.8.1 Internal survey.

#### 2.4.5.8.1.1 General.

Prior to submitting a boiler for internal survey, the following preparation shall be carried out:

the boiler shall be cooled, emptied, and manholes shall be opened;

all heating surfaces facing flame and gas space shall be cleared of deposits;

all surfaces facing steam space shall be cleaned of sludge and mud;

at the discretion of the Surveyor, the boiler insulation shall be removed on joints and seams, near manholes, flanges, valves and welded-on pieces as well as on the boiler parts of liable to intensive corrosion;

where necessary, internal devices of the boiler (desuperheaters, steam separators, oil removers, etc.) shall be dismantled and removed:

boiler valves and devices (for blow-off, feeding, etc) operating under pressure shall be dismantled and cleaned, the valves shall be ground in and made accessible for detailed examination and flaw detection in open condition;

boiler foundations and fastenings shall be cleaned and made accessible for examination.

Internal survey of boilers inaccessible for an internal visual examination and of their parts subject to pressure shall be generally carried out by means for diagnosis. In other cases, internal survey may be substituted by a hydraulic test for strength in accordance with the requirements of the Rules.

Before internal survey of a boiler, it is necessary to be sure that the latter is safely isolated from operating boilers, the valves between boilers are securely shut down, drives are reliably stopped and provided with a notice "Do not open", and during survey they shall be guided by watch. Control panels shall be disconnected.

Depending on the boiler plant design, the additional measures shall be taken to prevent the ingress of steam, water or thermal liquid from penetration into the boiler being surveyed.

**2.4.5.8.1.2** Gas-tube and gas-and-water-tube boilers.

**2.4.5.8.1.2.1** Prior to the internal survey of a boiler, the Surveyor shall be provided with measured data of furnace diameters for determining their general deformation.

The above measurements shall be made at each cross-section in four directions: vertical, horizontal and at an angle of 45° thereto, using permanent marks.

For corrugated furnaces, measurements shall be made at each corrugation, for plain furnaces measurements shall be made at three cross-sections of each element: at a distance of 200 mm away from fixation points and in the middle. Corrugations (cross-sections) shall be counted off from the front end plate of the boiler.

General deformation of the furnace shall be measured after eliminating local bulges located round the circumference with an angle of up to  $45^{\circ}$ . The furnace dropping,  $\Delta_1$ ,  $\Delta_2$  in per cent shall be determined by the greater of the two following values:

$$\Delta_1 = [(D_{\rm m} - D_{\rm min})/D_{\rm m}] \times 100,$$

$$\Delta_2 = [(D_{\text{max}} - D_{\text{m}})/D_{\text{m}}] \times 100$$

where  $D_m$  = mean diameter of a given corrugation (cross-section) involved to be determined as an arithmetic mean from measurement data;

 $D_{\min}$  and  $D_{\max}$  = minimum and maximum diameters of a given corrugation (cross-section) involved to be determined from measurement data, respectively.

Contraction of the furnace,  $\Delta_{cont}$  in per cent shall be determined from the formula

$$\Delta_{\rm cont} = [(D_{\rm m}^{\rm as~built} - D_{\rm m})/D_{\rm m}^{\rm as~built}] \times 100$$

where  $D_m^{as built}$  = mean "as built" diameter of the corrugation (cross-section).

Note. Where "as built" data are unavailable, the mean diameter shall be determined as an arithmetic mean of the measurements of end corrugations (cross-sections). The standards for general and local deformations of flame tubes are given in 2.9.3.2, Part II "Survey Schedule and Scope" of the Rules.

- **2.4.5.8.1.2.2** At internal survey of the boiler at the side of a fire space, the surfaces and seams of furnaces and combustion chambers, plate edges, ends of fire tubes and stays, ligaments between holes of the tube plates shall be thoroughly examined.
- **2.4.5.8.1.2.3** At internal survey of a boiler at the side of a water and steam space, the plates, barrels, end plates, furnaces, stays, reinforcements of combustion chambers and furnaces, as well as reinforcing rings for openings of access holes and manholes shall be thoroughly examined for the purpose of detecting defects (corrosive attack, cracks, thinning of stays, etc.).

Emphasis shall be placed upon the condition of short stays; their examination shall generally be supplemented with a tap test.

Stays, the appearance of which is doubtful, shall be measured at the thinnest points, and the broken and worn-out stays shall be renewed.

Attention shall be paid to the condition of the plate surfaces near manholes in the lower part of a barrel and end plates of the boiler, under combustion chambers and furnaces, in way of flanging, near the openings for blow-down valves, safety valves, as well as at the feed pipeline entry and in way of openings.

The condition of the interior devices of the boiler, steam separators, feed pipes, blow-off arrangements, etc. shall be checked.

**2.4.5.8.1.2.4** The condition of the boiler from the outside, particularly in way of welded joints, near manholes, welded-on pieces, flanges shall be checked.

The welds in the lower parts of the boiler, and also the longitudinal weld shall be most thoroughly examined to make sure that cracks, leaks and other defects are missing.

The boiler foundation and fastenings shall be examined.

- **2.4.5.8.1.2.5** When repositioning the water level and lowest water level indicators, it shall be made sure that their new positions correspond to the position indicator for the highest heating-surface point attached to the boiler wall.
- **2.4.5.8.1.2.6** Particular attention shall be paid to possible presence of the intercrystalline corrosion and cracks which generally occur in expansion and threaded joints on the side of the water space side.

Evidence of intercrystalline attack is systematic steam leaks identified by salt deposits on the exterior of expansion and threaded joints or by the presence of sludge beads on these joints inside the drums.

A special investigation shall be carried out if indications of intercrystalline attack are detected.

- **2.4.5.8.1.2.7** The water-tube section of gas-and-water tube boilers shall be surveyed within the scope specified for water-tube boilers.
  - 2.4.5.8.1.3 Water-tube boilers.
- **2.4.5.8.1.3.1** At internal survey of water-tube section boilers, the instructions of 2.4.5.8.1.2.3 to 2.4.5.8.1.2.6 on surveying gas-tube boilers shall be followed.
- **2.4.5.8.1.3.2** Prior to the internal survey of the boiler, the Surveyor shall be provided with a sketch of internal layout of headers and tube plates with the notes of tubes and tube plates condition (to be specified are places and dates of tube plugs installation, of tubes replacement and repairs) and with the measured data of water tubes slacks and bends.
- **2.4.5.8.1.3.3** During examining of a boiler at the side of flame space, it shall be checked the condition of the boiler brickwork and enclosure, gas-guiding baffles, boiler fastening elements (where accessible), the extent of the corrosive wear of economizers and air heaters, the condition of water tubes, superheater tubes and tube plates, and the presence of defects.
- **2.4.5.8.1.3.4** When repositing or replacing water level indicators, it is necessary to verify that they are properly positioned.
- **2.4.5.8.1.3.5** When examining the headers and divided headers, it is necessary to check the condition of the water tube expansion and flaring, their internal surface, to examine welds in order to make sure that cracks and corrosive attack (especially at the corners of divided headers) are missing, to check the condition of blow-off and separation arrangements.
  - 2.4.5.8.1.4 Thermal oil boilers.
- **2.4.5.8.1.4.1** At internal survey of thermal oil boilers, the instructions of 2.4.5.8.1.1 shall be followed taking into account the design features of such boilers.

- **2.4.5.8.1.4.2** At internal survey of the boiler, the Surveyor shall be provided with the drawing of heating elements (coils) with notes of coil condition, the measured data on slacks and bends of individual coil turns, as well as data on the external and internal surface contamination. The results of a thermal oil analysis supplemented with the conclusion of a laboratory on its further use shall be submitted. In case of replacement of the thermal oil heating elements by new ones, the certificate of quality by manufacturer shall be submitted on it (need of the analysis of the heating element is identified by RS surveyor).
- **2.4.5.8.1.4.3** When examining the boiler at the side of the flame space, it shall be checked that the condition of the boiler brickwork and enclosure, gas-guiding baffles, the fastening of coils and other elements of the boiler (where accessible), the amount of the corrosive wear of coils and their fastenings, the condition of the coil welds.
  - **2.4.5.8.1.4.4** At internal survey it is necessary to check the following:

condition of flange and nipple joints of the inlet and outlet pipelines with an emphasis placed upon their tightness and the lack of cracks at welded-on spots;

condition of the expansion tank and all the flange joints thereof, as well as of the tank welds and thermal oil level indicators;

condition of the nipple joints of all the gauges and control system sensors;

condition of the whole thermal oil pipeline including heating elements of the heat consumers with an emphasis placed upon the tightness of flange joints, the condition of welds, the presence of corrosive and erosive wear, as well as the condition of pipeline fasteners;

condition of circulating pumps with an emphasis placed upon the state of seals and flange joints;

in case of thermal oil waste-heat boilers, it is necessary to check the condition of the heating elements (coils) and to evaluate the extent of their corrosive wear, as well as the condition of welded joints, and to make sure that the dampers fitted in the main and bypass gas-outlet pipes are in fir condition.

2.4.5.8.2 Hydraulic tests.

**2.4.5.8.2.1** Hydraulic test shall be carried out with the following conditions to be observed:

boiler is completely filled with water and free of air;

two tested and sealed pressure gauges are available. The pressure gauges used for the hydraulic tests shall have the accuracy rating of at least 1,5 and case diameter of at least 160 mm. The maximum measurement limit of the pressure gauge shall be chosen so that during the tests the reading indicator is in the middle third of the scale;

water and ambient temperature of is not below +5 °C. The water and ambient air temperature difference prevents sweating;

pump operation shall not cause a drastic rise of pressure;

execution of any noisy works on board ship is prohibited;

no use of rubber hoses;

Hydraulic test shall be carried out in the following order:

pumping up to the to the working pressure;

preliminary examination at the working pressure;

pumping up to the test pressure with exposure at the test pressure with the pump switched off during 5 to 10 min;

reduction of pressure to the working pressure and examination at this pressure.

No decompression is allowed while the boiler is under test pressure.

**2.4.5.8.2.2** If during hydraulic test knocks are heard or other abnormal phenomena occur, the tests shall be suspended and after the water discharge, the boiler shall be thoroughly examined internally and externally for detection the damage location and nature.

When defects are eliminated, the test shall be repeated.

**2.4.5.8.2.3** Prior to submitting a boiler to a hydraulic test, besides the operations for the preparation the boiler for the internal survey, (see 2.4.5.8.1.1), the boiler insulation, where required, shall be removed on the joints and seams of the boiler body, bottom and headers, as well as at the places of expansion joints, connections, cut-outs and other places, where upon the results of the internal survey, gaps may be suspected.

#### **2.4.5.9** Heat exchangers and pressure vessels.

The scope of special survey of heat exchangers and pressure vessels is given in 2.4.5.7, Part II "Survey Schedule and Scope" of the Rules.

During survey, the Surveyor shall be guided by the RS-adopted methods of examinations, measurements and verifications of equipment and systems to the extent of the Rules requirements with due regard for the Manufacturer's recommendations.

No additional instructions and recommendations on the survey performance are needed.

### **2.4.5.10** Systems and piping of the machinery installation.

The scope of a special survey of systems and piping of the machinery installation is given in 2.4.5.8, Part II "Survey Schedule and Scope" of the Rules.

No additional instructions and recommendations on the examination and test performance are needed.

At survey and assessment of the technical condition of systems and piping of the machinery installation, the provisions of the Instruction on Survey of Ship's Piping (see Annex 26) are recommended for use.

#### 2.4.6 Ship systems and piping.

The scope of a special survey of the ship systems and piping is given in 2.4.6, Part II "Survey Schedule and Scope" of the Rules.

No additional instructions and recommendations on the examination and test performance are needed.

At a survey, and the assessment of the technical condition, of ship's service systems and piping, the provisions of the Instruction on Survey of Ship's Piping given in Annex 26 are recommended for use.

#### 2.4.7 Electrical equipment.

The scope of a special survey of electrical equipment is given in 2.4.7, Part II "Survey Schedule and Scope" of the Rules.

At survey, the Surveyor shall be guided by the RS-adopted methods of examinations, measurements and verifications of equipment and arrangements to the extent of the Rules requirements with due regard for the Manufacturer's recommendations.

No additional instructions and recommendations on the survey performance are needed.

#### 2.4.8 Automation equipment.

**2.4.8.1** The scope of a special survey of automation equipment is given in 2.4.8, Part II "Survey Schedule and Scope" of the Rules.

In order to check the functioning of automation equipment, the controlled parameters, measuring points, limiting values of parameters, types of automatic protection and parameter indication in the ECR of automated main propulsion plants, boiler plants, the ship electric power plants, compressor, bilge and refrigerating plants, as well as of plants and systems for the ships having the automation mark AUT3 in their class notation are given below in a tabular form:

- .1 Table 2.4.8.1-1 for automated main propulsion plants;
- **.2** Table 2.4.8.1-2 for boiler plants;
- .3 Table 2.4.8.1-3 for automated electric power plants;
- .4 Table 2.4.8.1-4 for automated compressor plants;
- .5 Table 2.4.8.1-5 for automated bilge plants;
- **.6** Table 2.4.8.1-6 for automated refrigerating plants;
- .7 Table 2.4.8.1-7 for ships having the automation mark AUT3 in their class notation.

Table 2.4.8.1-1

						Table 2.4.8.1-1
			Limiting values	Automatic	Parameter	
Nos	Controlled parameter	Measuring point	of parameters	Protection <sup>1</sup>	indication in	Notes
	•		(alarms)		ECR	
			· ·			
1	Internal combustion engines					
	(low-speed) <sup>2</sup>					
1.1	Lubricating oil pressure	At engine inlet	Min	Shutdown	Continuous	In case of several lubricating
						oil systems (for camshaft,
						valve rockers, etc.), the
						requirement applies to each
						system
1.2	Lubricating oil pressure differential	Filter	Max	_	On call	_
1.3	Lubricating oil temperature	At engine inlet	Max	_	On call	See Note to 1.1
1.4	Cylinder flow of lubricating oil	At outlet of each lubricator	Min	Slowdown	_	_
1.5	Turbocharger oil pressure	At inlet of bearing	Min	_	_	If independent lubricating
						pump is fitted
1.6	Turbocharger oil temperature	At outlet of bearing	Max	_	_	For sliding bearings
1.7	Lubricating oil level in oil	In sump circulation	Min, Max	_	_	Maximum level alarm only
	circulation system	tank				where indication is not fitted
						See also Note to 1.1
1.8	Lubricating oil level in	In gravity tank	Min		_	_
	turbocharger lubrication system					
1.9	Oil mist concentration or bearing	At each crank or	Max	Slowdown	_	For engines having a power in
	temperature	bearing				excess of 2250 kW or cylinder
						diameter over 300 mm
1.10	Cylinder coolant pressure	At inlet of mains	Min	Slowdown	Continuous	Monitoring of flow rate may
						be substituted for pressure
						monitoring
1.11	Cylinder coolant temperature	At outlet of each	Max	Slowdown	On call	_
		cylinder				
1.12	Presence of oil in fresh cooling	In cooling water pipe at	Max	_	_	When cooling water is used
	water	heat exchanger outlet				in fuel oil and lubricating oil
						heat exchangers
1.13	Piston coolant pressure	At inlet of mains	Min	Slowdown	_	No slowdown is required
						where circulation oil is the
						coolant
1.14	Piston coolant flow	At outlet of each piston	Min	Slowdown		_
1.15	Piston coolant temperature	At outlet of each piston	Max	Slowdown	On call	_
1.16	Injector coolant pressure	At inlet of mains	Min	_	Continuous	Monitoring of flow rate may
						be substituted for pressure
					0 11	monitoring
1.17	Injector coolant temperature	At outlet of mains	Max	_	On call	_
1.18	Cylinder coolant level	Expansion tank	Min	_	_	_
1.19	Piston coolant level	Expansion tank	Min	_	_	_
1.20	Injector coolant level	Expansion tank	Min, Max	-	— —	_
1.21	Sea water pressure	At pump outlet	Min		Continuous	_
1.22	Scavenging air temperature	At cooler outlet	Max —	_	On call	_
1.23	Seavenging air pressure	Manifold		_	Continuous	_
1.24	Water level	Seavenging air maniforld	Max Min	_	— O= 25 <sup>11</sup>	_
1.25	Fuel oil pressure	At inlet of fuel injec-	Min	_	On call	_
1.26	Fuel oil pressure differential	tion pumps	Max			
1.26	Fuel oil viscosity (temperature)	Filter	Max, Min	_	<u> </u>	When heavy fuel oil is used
1.27	Fuel oil temperature	At engine inlet	Min, Max		On call	If heated
1.20	r der om temperature	Settling and daily	IVIIII, IVIAX	-	On can	11 IIcaicu
1.29	Fuel oil level	service tanks	Min		_	_
1.29	1 doi on level	Settling and daily	141111			
		service tanks	Max	_		_
1.30	Fuel oil leakage	Overflow tank	Presence of fuel		_	_
1.31	Exhaust gas temperature	High-pressure piping	Max	Slowdown	On call	_
1.51	Extraction gas competature	At outlet of each cylinder	Max		—	_
		Deviation from mean	IVIUA			
1.32	Exhaust gas temperature	value	Max		On call	
1.52	Z.maast gas temperature	At inlet and outlet of	IVIUA		On can	
1.33	Temperature in scavenge and	turbocharger	Max	Slowdown	_	_
1.55	underpiston spaces (ignition)	Scavenge and	14141	Siowdowii		
1.34	Starting air pressure	underpiston spaces	Min	_	Continuous	_
1.54	Sanding an pressure	At inlet of master	141111		Commuous	
		111 mict of master				

Table 2.4.8.1-1 - continued

Limiting values   Automatic   Protection   Indication in   Notes							Table 2.4.8.1-1 - continued
Note   Controlled parameter   Measuring point   Columns   Protection   Indication in   ECR				Limiting values	Automatic	Parameter	
Labs   Control air pressure   Starting air valve   Engine control system   Emergency engine shadown system   Max   Slowdown   Max   Slowdown   Max   Slowdown   Max   Slowdown   Max   Slowdown   Max   Slowdown   Max   Max   Slowdown   Max   Slowdown   Max   Slowdown   Max	Nos	Controlled parameter	Measuring point				Notes
1.55   Control air pressure   Starting air valve   Engine control system   Min   Min   Max   Shudown   Continuous   Cont	1105	controlled parameter	Wiedsdring point		Trotection		rotes
Labricating oil pressure   Labricating oil level   Labricating oil pressure   Labricating oil pressure   Condenser   Max   Min   Continuous   Cont				(alailis)		LCK	
Labricating oil pressure   Labricating oil level   Labricating oil pressure   Labricating oil pressure   Condenser   Max   Min   Continuous   Cont	1.25	C + 1 :		ν		0 11	
Label   Emergency engine   Shutdown system   Max   Slowdown   Continuous   Contin	1.35	Control air pressure			_	On call	_
1.36   Engine load   1.37   Engine speed   Turbice present   Tur				Mın	_	_	_
1.35   Turbocharger speed			Emergency engine				
1.39   Turbocharger speed	1.36	Engine load	shutdown system	Max	Slowdown		_
1.39   Turbocharger speed	1.37	Engine speed		Max	Shutdown	Continuous	_
1.49   Nover supply to control, protection and alarm system	1.38		_	Opposite to		Continuous	
1.49   Power supply to control, protection and alarm system   Steam turbines   Steam turbines   Lubricating oil pressure   Lubricating oil pressure   Gravity tank   At outlet of oil cooler   Max   Max   Continuous   Continuo	1.00	Britain of engine fermion				Commuous	
Power supply to control, protection and alarm system	1 20	Turboohorgor groad		preserroed		Continuous	
Lion and alarm system   Continuous   Conti						Continuous	_
2.1   Lubricating oil pressure   Lubricating oil pressure   Lubricating oil pressure   At outlet of oil cooler   Max   — Continuous   — Con	1.40		_	No power supply	_		_
Lubricating oil pressure differential Lubricating oil repressure At outlet of oil cooler Filter Gravity tank		tion and alarm system					
Lubricating oil pressure differential Lubricating oil repressure At outlet of oil cooler Filter Gravity tank							
2.2   Lubricating oil lressure differential   2.3   Lubricating oil level   2.4   Lubricating oil level   2.5   Steam pressure   Gravity unak   At inlet of manoeuvring gar   Max   Min   Max, Min   Max   Max, Min   Max,	2	Steam turbines					
2.2   Lubricating oil leves are differential   2.3   Lubricating oil temperature   2.4   Lubricating oil level   Cravity tunk   At outlet of oil cooler   Max   Min   Min	2.1	Lubricating oil pressure		Min	Shutdown	Continuous	_
2.4 Lubricating oil temperature 2.4 Lubricating oil temperature 3.5 Steam temperature 3.6 Steam pressure 3.7 Steam pressure 3.9 Water level Decarator Max, Min Max, M	2.2		At outlet of oil cooler	Max	_	On call	_
2.4   Lubricating oil level   At outlet of each bearing Gravity tank   Max, Min   Max,							
Seam temperature   Gravity tank   Al inlet of manoeuvring gor   Al inlet of manoeuvring gor   Max   Max   Min   Continuous   Continuo					Chutdown		
At inlet of manocurving gar   Max   Pressure   Steam pressure   At inlet of manocurving gar   Max   Max, Min   Max   Min   Min   Max   Min   Max   Min   Max   Min   Max   Min   Max   Min   Max   Min   Min   Max   Min   Max   Min   Max   Min   Max   Min   Min   Max   Min   Min   Max   Min					Shutdown		
Steam pressure	2.5	steam temperature	, ,	iviax, Min	-	On call	
2.7   Steam pressure   At inlet of manoeuving gear   Condenser   Max, Min   Max, Min   Continuous   — On call		-	_				where reheater is fitted
2.9   Water level   Decerator   Max, Min   — On call	2.6				-		-
2.9   Water level   Decerator   Max, Min   — On call	2.7	Steam pressure	At inlet of manoeuvring gear	Max	Shutdown	Continuous	-
2.10				Max. Min			_
Decerator   Water level   Condenser   Ar oute of condenser   Ar oute of condenser   Max   Shutdown   — — — — — — — — — — — — — — — — — —	l				l		_
2.11   Water pressure   Condenser At outer of condense pump   At outer of condenser   Turbine vibration   At outer of condenser   Turbine casing   Max   Shutdown   —   Continuous   —					Shutdown		
2.13   Condensate salinity Turbine vibration				,	Silutuowii		_
2.14   Axial rotor displacement   Art outlet of condenser Turbine casing   Max   Max   Shutdown   —   —					_	On call	_
Axial rotor displacement   Steam pressure   Steam pressure   End glands   At oulet of circulation pump	l	ž –	1 1	Max	_	_	_
Steam pressure   Sea water pressure   End glands   At outlet of circulation pump   At inlet   Max   —   Continuous   —	2.13	Turbine vibration	At outlet of condenser	Max	Shutdown		_
2.16   Steam pressure   End glands   At outlet of circulation pump   At inlet of circulation pump   At inlet   Max   On call	2.14	Axial rotor displacement	Turbine casing	Max	Shutdown	_	_
Sea water pressure	2.15		_	Max	_	Continuous	_
At oulet of circulation pump   At inlet			End glands				_
3.1   Lubricating oil pressure   At inlet   Max   — On call   — Continuous   — On call	2.10	Sea water pressure	At outlet of circulation numn	14111		Continuous	
3.1   Lubricating oil pressure   Lubricating oil temperature   At inlet   Max   At inlet   At inlet   Max   At inlet	2	Cas turbinas	At outlet of chediation pump				
3.2   Lubricating oil temperature   At inlet   Max   Max   Max   Min   Min   Min   Min   Max   Min   Min   Max   Min   Max   Min   Min   Max   Min	l			\ \v.	C1 + 1	G .:	
3.4   Cooling water pressure   At inlet   Max   Min   Min   Max   Continuous   Max   Min					Shutdown		_
3.5   Cooling water pressure   Cooling water temperature   At inlet and outlet of turbine   At inlet and outlet of turbine   At inlet of burners   Augustian   Aug					_		_
3.5   Cooling water temperature   At inlet and outlet of turbine   At inlet of high-pressure   At inlet of high-pressure   Compressor   Filter   Compressor   Filter   At inlet of burners   Aux   At inlet of	3.3		At inlet	Max	_	On call	_
3.5   Cooling water temperature   At inlet and outlet of turbine   At inlet of high-pressure   At inlet of high-pressure   Compressor   Filter   Compressor   Filter   At inlet of burners   Aux   At inlet of	3.4	Cooling water pressure	_	Min	_	Continuous	_
3.6   Gas temperature	3.5	Cooling water temperature	_	Max		On call	_
3.7 Air temperature  3.8 Lubricating oil pressure differential 3.9 Fuel oil pressure 3.10 Fuel oil temperature 3.11 Pressure differential 3.12 Burner flame 3.13 Turbine vibration 3.14 Axial rotor displacement 3.15 Turbine speed  4. Shafting 4.1 Bearing (or lubricating oil) temperature 4.2 Bearing (or lubricating oil) temperature 4.3 Bearing (or lubricating oil) temperature 4.4 Lubricating oil level 4.5 Water flow  4.5 CPP 5.1 Hydraulic oil pressure  At outlet of turbine At inlet of high-pressure compressor Filter Min Max —  Max	3.6		At inlet and outlet of turbine	Max	Shutdown	Continuous	
At inlet of high-pressure compressor   Aux   -	l	1			Shutdown		
3.8   Lubricating oil pressure differential   Fuel oil pressure   Filter   Min   — On call   Max   — On call   — On call   Max   Max   Max   Max   — On call   Max   Max   Max   Max   — On call   Max   M	3.7	An temperature		IVIAA		On can	
3.9 Fuel oil pressure 3.10 Fuel oil temperature 3.11 Pressure differential 3.12 Burner flame 3.13 Turbine vibration 3.14 Axial rotor displacement 3.15 Turbine speed  4.1 Shafting Bearing (or lubricating oil) temperature  4.2 Bearing (or lubricating oil) temperature  4.3 Bearing (or lubricating oil) temperature  4.4 Lubricating oil level  4.5 CPP  5.1 Hydraulic oil pressure  Filter At inlet of burners Ax	2.0	T 1 1 2 2 2 1 100 2 1					
3.10   Fuel oil temperature   At inlet of burners   Aux   Shutdown   Aux   Shutdown   At inlet of burners   Aux   Shutdown   Aux   Slowdown   Aux   Slowdown   Aux   Slowdown   Aux   Slowdown   Aux   Slowdown   Aux   At inlet of burners   Au			_		_		_
3.11   Pressure differential   3.12   Burner flame   Air intake   Air intake   Flame failure   Max   Shutdown   Shutdown   Shutdown   Shutdown   Shutdown   Continuous   Shutdown   Continuous   Shutdown   Continuous   Continu	l						-
3.12   Burner flame   Air intake   Flame failure   Max   Shutdown   Max   Slowdown   Max	3.10			Max, Min	-	On call	If heated
3.13   Turbine vibration   3.14   Axial rotor displacement   3.15   Turbine speed	3.11	Pressure differential	At inlet of burners	Max	_	_	
3.13   Turbine vibration   3.14   Axial rotor displacement   3.15   Turbine speed	3.12	Burner flame	Air intake	Flame failure	_	_	
3.14   Axial rotor displacement			_		Shutdown	l _	_
3.15 Turbine speed  4 Shafting 4.1 Bearing (or lubricating oil) temperature  4.2 Bearing (or lubricating oil) temperature  4.3 Bearing (or lubricating oil) temperature  4.4 Lubricating oil level  4.5 Water flow  Sterntube lubricating tank  Sterntube inlet  Max  Slowdown  Slowdown  Max  Slowdown  Max  Slowdown  Max  Slowdown  Max  Slowdown  Max  Slowdown  Max  Max  Max  Max  Max  Slowdown  Max  Max  Max  See 2.5.3, Part V  "Machinery Installations" the Rules for the Classification and Con ruction of Sea-Going Ships  Min  Min  Min  Min  Min  Min  Min  Mi			_			_	_
4.1 Shafting 4.1 Bearing (or lubricating oil) temperature 4.2 Bearing (or lubricating oil) temperature 4.3 Bearing (or lubricating oil) temperature 4.4 Lubricating oil level 4.5 Water flow 5 CPP 5.1 Hydraulic oil pressure Hydraulic oil level At filter outlet						Continuous	
4.1 Bearing (or lubricating oil) temperature  4.2 Bearing (or lubricating oil) temperature  4.3 Bearing (or lubricating oil) temperature  4.4 Lubricating oil level  4.5 Water flow  Stemtube lubricating tank Sterntube inlet  Max  Slowdown  Max  Slowdown  Max  Slowdown  Max  Slowdown  Max  Slowdown  Max  Slowdown  Max  Max  See 2.5.3, Part V  "Machinery Installations" the Rules for the Classification and Congruction of Sea-Going Ships  Min  Min  Min  Min  Min  Min  Min  Mi	3.13	Taronic speed		IVIAA	Sharaowii	Commuous	_
4.1 Bearing (or lubricating oil) temperature  4.2 Bearing (or lubricating oil) temperature  4.3 Bearing (or lubricating oil) temperature  4.4 Lubricating oil level  4.5 Water flow  Stemtube lubricating tank Sterntube inlet  Max  Slowdown  Max  Slowdown  Max  Slowdown  Max  Slowdown  Max  Slowdown  Max  Slowdown  Max  Max  See 2.5.3, Part V  "Machinery Installations" the Rules for the Classification and Congruction of Sea-Going Ships  Min  Min  Min  Min  Min  Min  Min  Mi	,	Shofting	_				
4.2 Bearing (or lubricating oil) temperature 4.3 Bearing (or lubricating oil) temperature Bearing (or lubricating oil) temperature  4.4 Lubricating oil level  4.5 Water flow  Stemtube lubricating tank Sterntube inlet  5 CPP  5.1 Hydraulic oil pressure Hydraulic oil level  At filter outlet  Thrust bearings including those built in the engine or reduction gear Tunnel bearings  Max  —  See 2.5.3, Part V  "Machinery Installations" the Rules for the Classification and Con ruction of Sea-Going Ships  Min  —  With sterntube closed If water-lubricated  Min  —  At filter outlet  Min  —  At filter outlet  Min  —  —  —  —  —  —  —  —  —  —  See 2.5.3, Part V  "Machinery Installations" the Rules for the Classification and Con ruction of Sea-Going Ships  —  With sterntube closed If water-lubricated				l ,,	g1 .		
4.2 Bearing (or lubricating oil) temperature  Tunnel bearings Sterntube bearing  Max — See 2.5.3, Part V "Machinery Installations" the Rules for the Classification and Congruction of Sea-Going Ships  4.4 Lubricating oil level  Water flow  Sterntube lubricating tank Sterntube inlet  Tunnel bearings Sterntube bearing  Min — With sterntube closed If water-lubricated  Min — Hydraulic oil pressure Hydraulic oil level  At filter outlet  Min — — — — — — — — — — — — — — — — — — —	4.1	Bearing (or lubricating oil) temperature		Max	Slowdown	_	-
4.3 Bearing (or lubricating oil) temperature Bearing (or lubricating oil) temperature  4.3 Bearing (or lubricating oil) temperature  Bearing (or lubricating oil) temperature  Tunnel bearings  Sterntube bearing  Max  —————————————————————————————————							
4.3 Bearing (or lubricating oil) temperature Bearing (or lubricating oil) temperature  4.3 Bearing (or lubricating oil) temperature  Bearing (or lubricating oil) temperature  Tunnel bearings  Sterntube bearing  Max  —————————————————————————————————			those built in the engine or				
4.3 Bearing (or lubricating oil) temperature  Tunnel bearings Sterntube bearing  Max  — See 2.5.3, Part V "Machinery Installations" the Rules for the Classification and Congruction of Sea-Going Ships  4.4 Lubricating oil level Water flow Sterntube lubricating tank Sterntube inlet  Tunnel bearings Sterntube bearing  Min — — With sterntube closed If water-lubricated  Tunnel bearings Sterntube bearing  Min — — With sterntube closed If water-lubricated  Tunnel bearings Sterntube bearing  Min — — — — — — — — — — — — — — — — — — —	4.2	Bearing (or lubricating oil) temperature	reduction gear	Max	_	_	–
Sterntube bearing  Sterntube bearing  Wachinery Installations" the Rules for the Classification and Conruction of Sea-Going Ships  4.4 Lubricating oil level Water flow  Sterntube lubricating tank Sterntube inlet  The Rules for the Classification and Conruction of Sea-Going Ships  With sterntube closed If water-lubricated  The Rules for the Classification and Conruction of Sea-Going Ships  With sterntube closed If water-lubricated  The Rules for the Classification and Conruction of Sea-Going Ships  With sterntube closed If water-lubricated  The Rules for the Classification and Conruction of Sea-Going Ships  With sterntube closed If water-lubricated  The Rules for the Classification and Conruction of Sea-Going Ships  With sterntube closed If water-lubricated					_	_	See 2.5.3, Part VII
the Rules for the Classification and Conruction of Sea-Going Ships  4.4 Lubricating oil level Water flow  Sterntube lubricating tank Sterntube inlet  The Rules for the Classification and Conruction of Sea-Going Ships  With sterntube closed If water-lubricated  The Rules for the Classification and Conruction of Sea-Going Ships  With sterntube closed If water-lubricated  The Rules for the Classification and Conruction of Sea-Going Ships  With sterntube closed If water-lubricated  The Rules for the Classification and Conruction of Sea-Going Ships  With sterntube closed If water-lubricated  The Rules for the Classification and Conruction of Sea-Going Ships  With sterntube closed If water-lubricated		Bound (or morrowing on) temperature	Starntube hearing	112412			
4.4 Lubricating oil level 4.5 Water flow  Stemtube lubricating tank Sterntube inlet  Min — With sterntube closed If water-lubricated  Min — With sterntube closed If water-lubricated  Min —  5.2 Hydraulic oil pressure Hydraulic oil level At filter outlet  Min — —  Classification and Con ruction of Sea-Going Ships  Min — — With sterntube closed If water-lubricated			Stermane ocaring				
4.4 Lubricating oil level 4.5 Water flow  Stemtube lubricating tank Sterntube inlet  Min  — With sterntube closed If water-lubricated  Sterntube inlet  Min  — With sterntube closed If water-lubricated  Min  — Hydraulic oil pressure Hydraulic oil level  At filter outlet  Min  — —  At filter outlet							
4.4   Lubricating oil level   Min   —   With sterntube closed   Min   Min   —   With sterntube closed   If water-lubricated   Min   —   Min							
4.5   Water flow   Stemtube lubricating tank   Min   —   With sterntube closed   If water-lubricated     5   CPP							ruction of Sea-Going Ships
4.5   Water flow   Sterntube lubricating tank   Min   —   With sterntube closed   If water-lubricated     5   CPP     Min   —   —     5.1   Hydraulic oil pressure   Min   —   —     5.2   Hydraulic oil level   At filter outlet   Min   —   —	4.4	Lubricating oil level		Min	-	_	
5 CPP 5.1 Hydraulic oil pressure 5.2 Hydraulic oil level At filter outlet Min — — — — — — — — — — — — — — — — — — —	4.5		Sterntube lubricating tank	Min		_	With sterntube closed
5         CPP           5.1         Hydraulic oil pressure           5.2         Hydraulic oil level             At filter outlet         Min           —         —           —         —			_				
5.1   Hydraulic oil pressure   Min   —   —	5	СББ	Stormage infet				11aici iudiidaica
5.2 Hydraulic oil level At filter outlet Min — — —				Min			
			4 . 61.		-	_	
5.3   Auxiliary power   Gravity tank   Deenergizing   -   -   -					-	_	_
	5.3	Auxiliary power	Gravity tank	Deenergizing	_	_	_

Table 2.4.8.1-1 — continued

Nos	Controlled parameter	Measuring point	Limiting values of parameters (alarms)	Automatic Protection <sup>1</sup>	Parameter indication in ECR	Notes			
6 6.1	Reduction gears and couplings Lubricating oil pressure	Power supply to controls	Min	Shutdown	Continuous	Bridge indication			
6.2 6.3	Lubricating oil temperature Bearing temperature		Max Max	Slowdown	On call				
6.4	Hydraulic oil pressure		Min	_	Continuous				
Where a coupling is fitted, its disengagement may be effected instead of engine shutdown  For engines having a power over 2250 kW									

## Table 2.4.8.1-2

Nos	Controlled parameter	Measuring point	Limiting values of parameters (alarms) <sup>1</sup>	Automatic Protection	Parameter indication in ECR	Notes
1	Main boilers					
1.1	Steam pressure	Boiler drum	Max, Min	_	Continuous	_
1.2	Steam temperature	At superheater outlet	Max	_	On call	_
1.3	Steam temperature	At steam cooler outlet	Max	_	On call	_
1.4	Water level	Boiler drum	Min	Boiler shutdown	Continuous	_
1.5	Feed water pressure or pressure differential	At pump outlet	Min	Boiler shutdown	Continuous	_
1.6	Fuel oil pressure	At burner inlet	Min	_	On call	_
1.7	Pressure of air or steam used for atomization	At burner inlet	Min	_	_	_
1.8	Fuel oil viscosity (temperature)	At burner inlet	Max (Min)	_	On call	_
1.9	Air pressure	At furnace inlet	Min	_	_	_
1.10	Feed water salinity	At feed pump outlet	Max	_	On call	_
1.11	Flame	_	Flame failure	Boiler shutdown	On call	_
1.12	Fuel oil level	Daily service tank	Min	_	On call	_
1.13	Fuel oil temperature	Daily service tank	Max	_	_	_
1.14	Power supply to controls	Power supply unit	Failure	Boiler shutdown	On call	_
2	Auxiliary boilers and thermal fluid boilers					
2.1	Steam pressure	Boiler drum	Max, Min	Boiler shutdown	On call	
2.2	Water level	Boiler drum	Max, Min	Boiler shutdown	Continuous	Two independent
2.3	Feed water pressure	At circulating pump		<b>5</b> . 1. 1. 1		sensors
	P 1 3	outlet	Min	Boiler shutdown	Continuous	
2.4	Fuel oil viscosity (temperature)	At burner inlet  At burner inlet	Min  Max (Min)	Boiler shutdown  —	On call —	Except boilers with positional and pro- portional regulation of fuel supply Only when heavy fuel oil is used
2.6	Air pressure	At furnace inlet	Min	Boiler shutdown	_	_
2.7	Flame	_	Flame failure	Boiler shutdown	_	_
2.8	Pressure of air or steam used for atomization	At burner inlet	Min	Boiler shutdown	_	_
2.9	Water level	Hot well	Min	_	_	_
2.10	Feed water salinity	At feed pump outlet	Max	_	_	_
2.11	Power supply to controls	Power supply unit	Failure	Boiler shutdown	_	_
2.12	Thermal fluid pressure	At boiler outlet	Max	Boiler shutdown	_	_
2.13	Thermal fluid temperature	At boiler outlet	Max	Boiler shutdown	_	_
2.14	Thermal fluid flow	At boiler outlet	Min	Boiler shutdown	Continuous	_
2.15	Thermal fluid level	Expansion vessel	Min	Boiler shutdown	Continuous	_

<sup>1</sup>In engine control room (ECR), generalized alarms may be used if their identification is provided at the local control

Table 2.4.8.1-3

Nos	Controlled parameter	Measuring point	Limiting values of parameters (alarms) <sup>1</sup>	Automatic protection	Parameter indication in ECR	Notes
1 1.1	Ship's mains Voltage	MSB	Min	Generator disconnection <sup>1</sup>	Continuous	Where MSB is installed in ECR, readings shall be displayed at the MSB only
1.2	Current frequency	MSB	Min		Continuous	Ditto
1.3	Insulation resistance	MSB	Min		Continuous	Ditto
2	Generators	WISD	IVIIII		Continuous	Ditto
2.1	Load (current)	MSB	Max	Disconnection of non-essential	Continuous	Ditto
				consumers, disconnection of a generator <sup>1</sup>		
2.2	Reverse power (current)	MSB	Max	Generator disconnection <sup>1</sup>	_	Ditto
2.3	Windings temperature <sup>2</sup> Internal combustion engines for	Generator	Max	_	_	Ditto
'	driving generators					
3.1	Lubricating oil pressure	At engine inlet	Min	Engine shutdown	On call	_
3.2	Lubricating oil temperature	At engine inlet	Max	_	On call	_
3.3	Coolant pressure or flow	At engine inlet	Min	_	_	_
3.4	Coolant temperature	At engine outlet	Max	_	On call	_
3.5	Engine speed	_	Max	Engine shutdown	_	_
3.6	Fuel oil level	Daily service tank	Min	_	_	_
3.7	Fuel oil leakage	High-pressure piping	Fuel oil presence	_	_	_
3.8	Exhaust gas temperature	Exhaust manifold	Max	_	On call	_
3.9	Sea water pressure or flow	In sea-water cooling system	Min	_	_	_
3.10	Fuel oil pressure	At high-pressure pump inlet	Min	_	_	_
3.11	Fuel oil viscosity (temperature)	At engine inlet	Max (Min)	_	_	Only when heavy fuel oil is used
3.12	Cooling water level	Expansion tank	Min	_	On call	For independent cooling system
3.13	Oil mist concentration or bearing	At each crank or bearing	Max	Engine	On call	For engines with power output
	temperature			shutdown		more than 2250 kW or with
						cylinder bore 300 mm and more
3.14		Before master starting air valve	Max	_	On call	_
4	Steam turbines for driving generators			l		
4.1	Lubricating oil pressure	At oil cooler outlet	Min	Turbine shutdown	On call	_
4.2	Lubricating oil temperature	At bearing outlets	Max	_	On call	
4.3	Steam pressure	In condenser	Max	Turbine shutdown	On call	_
4.4	Steam pressure	Before turbine	Min		On call	_
4.5	Water level	In condenser	Max	_	_	_

<sup>1</sup>Effected by the generators protection system (refer to 8.2, Part XI "Electrical Equipment" of the Rules for Construction). <sup>2</sup>Required only for the alternating-current machines rated over 5000 kW or having the axial length of an active steel over

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Nos	Controlled parameter	Measuring point	Limiting values of parameters (alarms)	Automatic protection <sup>1</sup>	Parameter indication in ECR	Notes				
1 2	Lubricating oil pressure Coolant flow	At compressor inlet At compressor outlet	Min Min	Compressor shutdown Compressor shutdown	_ _	Instead of flow, maximum				
3 4 5	Air temperature Starting air pressure Control air pressure	At cooler outlet At air receiver outlet At reducing valve outlet	Max Min Min	  	Continuous	coolant temperature may be controlled				
1	Generalized alarms are permitted in ECR if their identification is provided at the local control station.									

## Table 2.4.8.1-5

Controlled parameter	Measuring point	Limiting values of parameters (alarms)		Parameter indication in ECR	Notes
Water level	Bilge wells	Max, min	_		When remotely controlled
Emergency water level	Bilge wells, shaft tunnels	Max	_		The alarm is brought to a wheelhouse

#### Table 2.4.8.1-6

Controlled parameter	Measuring point	Limiting values of parameters (alarms)	Automatic protection	Parameter indication in ECR	Notes
Condition of refrigerating plant	Compressor Ditto	Malfunction Failure	Compressor shutdown		Generalized alarm Generalized alarm on protection actuation

## Table 2.4.8.1-7

						1 a b l e 2.4.8.1-/
Nos	Controlled parameter	Measuring point	Limiting values of parameters (alarms)	Automatic protection <sup>1</sup>	Parameter indication in ECR	Notes
1 1.1 1.2 1.3 1.4 1.5	Main internal combustion engines Lubricating oil pressure Lubricating oil temperature Lubricating oil flow Lubricating oil pressure differential Turbocharger lubricating oil pressure Oil mist concentration or bearings temperature	At engine inlet At engine inlet At lubricator outlet Filter At bearing inlet At each crank or bearing	Min Max Min Max Min	Engine shutdown — Slowdown — Slowdown	Continuous Continuous On call —	If independent lubricating pump is fitted For low-speed engines having a cylinder diameter
				Engine shutdown	_	over 300 mm For medium- and high-speed engines having a cylinder diameter over 300 mm
1.7 1.8 1.9 1.10 1.11	C 1	At engine inlet At engine outlet In cooling seawater system Exhaust maniforld At each cylinder outlet	Min Max Min Max Max	Slowdown Slowdown Slowdown	Continuous On call Continuous — On call	For engines with cylinder output over 500 kW
1.13 1.14 1.15 1.16 1.17 1.18	Starting air pressure Air pressure Scavenging air pressure Fuel oil pressure Fuel oil viscosity (temperature) Fuel oil level Fuel oil leakage Engine speed	Deviation from mean value in cylinders At starting valve inlet Engine control system At scavenging air cooler outlet High-pressure fuel pump inlets At engine inlet  Daily service tank High-pressure piping	Max Min Min Max Min Max Min Max (Min) Min Fuel oil presence Max		Continuous  On call  Continuous	Ditto  Ditto  When operating on heavy fuel oil  — — — — — — — — — — — — — — — — — —
	Power supply of control, signalling and protection system Auxiliary boilers and thermal fluid boilers	At system inlet	Lack of power supply	Engine shutdown —	— —	 
3.1 3.2 3.3 3.4 3.5 3.6	Internal combustion engines for driving generators Lubricating oil pressure Coolant pressure or flow Coolant temperature Fuel oil leakage Engine speed Starting air pressure	At engine inlet At engine inlet At engine outlet High-pressure piping Overspeed governor At starting valve inlet	Min Min Max Fuel oil presence Max Min	Engine shutdown  — — — Engine shutdown —	_ _ _ _ _	    

Table 2.4.8.1-7 - continued

Nos	Controlled parameter	Measuring point	Limiting values of parameters (alarms)	Automatic protection <sup>1</sup>	Parameter indication in ECR	Notes
4	Reduction gear					
4.1	Lubricating oil pressure	At reduction gear inlet	Min	Engine shutdown	_	_
4.2	Lubricating oil temperature	Reduction gear	Max	_	_	_
5	Starting air compressors					
5.1	Lubricating oil pressure	At compressor inlet	Min	Compressor	_	_
				shutdown		
5.2	Air temperature	At compressor outlet	Max	_	_	_
6	Tanks					
6.1	Lubricating oil level	Daily service tank	Min	_	_	_
6.2	Oil leakage level	Oil leakage tank	Max	_	_	_
6.3	Fuel oil level	Daily service tank	Min	_	_	_
		Overflow tank	Max	_	_	_
6.4	Coolant level	Expansion tank	Min	_	_	_
7	Ship's mains					
7.1	Voltage	MSB	Min, Max	_	Continuous	_
7.2	Load (current)	MSB	Max	_	Continuous	_
7.3	Current frequency	MSB	Min	_	Continuous	_
7.4	Insulation resistance	MSB	Min	_	Continuous	_

<sup>1</sup>On agreement with the Register, special visual and audible alarms may be provided instead of a slowdown where internal combustion engines are concerned.

#### 2.5 SURVEYS OF REFRIGERATING PLANTS

#### 2.5.1 General.

- **2.5.1.1** This Chapter establishes the order and methods for surveying items of refrigerating plants (both subject to classification and not classified ones) in operation. The order and methods shall be applied at periodical, occasional and initial surveys.
- **2.5.1.2** Respective recommendations and explanations set forth in Part I "General Provisions" and Section 1 of this Part are used during the surveys of refrigerating plants.
- **2.5.1.3** The methods of surveys for the relevant items of the same type, set forth in 2.2 and 2.4, are also applicable to such items of the refrigerating plant as prime movers, compressors, pumps, fans, pressure vessels, valves and piping, electrical equipment, and automation and protection devices comprising the refrigerating plant.
- **2.5.1.4** The scope, type of surveys and tests of the refrigerating plant and its components, and intervals between surveys are set forth in Part IV "Surveys of Refrigerating Plants" of the Rules.
  - 2.5.1.5 The Register does not provide any delay of annual surveys of the refrigerating plant.

Upon agreement with the RS Branch Office, the Surveyor may reduce the time period established between surveys of individual items due to their technical condition or other reasons; in this case, the date of the occasional survey of the item shall be set.

- **2.5.1.6** The surveys of refrigerating plants are intended to evaluate the operational safety of their components which affect the ship's safe navigation and the safety of life; for classed refrigerating plants, to be additionally checked are the capability of achieving and maintaining the specified temperatures in refrigerated spaces and freezing apparatuses, the capability of ensuring the specified duration of a refrigerating cycle in freezing apparatuses and other cooling equipment, as well as the specified capacity of ice generators.
- **2.5.1.7** The instructions on the performance of surveys, examinations, checks, tests, etc. set below, refer to classed and unclassed refrigerating provided their components are subject to the Register technical supervision according to Table 2.1, Part IV "Surveys of Refrigerating Plants" of the Rules.
- **2.5.1.8** Provisions regarding technical supervision of refrigerating plant repairs are given in the MR on repair.

#### 2.5.2 Procedure for survey of refrigerating plant.

- **2.5.2.1** At all the types of surveys, the refrigerating plant components shall be prepared for surveying with the access, opening-up, dismantling and disassembly of units and components ensured where needed.
- **2.5.2.2** Components shall be submitted for survey and test in efficient working order (excepting the surveys relating to a forthcoming or present repairs, and to accidents).
- **2.5.2.3** Upon Surveyor's request, all necessary documents shall be submitted during survey (drawings, descriptions, diagrams, files or certificates, equipment performance logs, log books).
- **2.5.2.4** The initially fitted on board components of a refrigerating plant, as well as their replacements shall be provided with documents for products specified by the Rules for Technical Supervision during Construction of Ships and Manufactures of Materials and Products for Ships.
- **2.5.2.5** After repairs or installation of the refrigerating plant components on board, the relevant tests specified during their manufacture and installation on board shall be carried out. The tests are performed in accordance with the Register Rules followed by issue of appropriate documents. The extent of tests for the repaired components is established by the Surveyor upon the nature and extent of repairs.
- **2.5.2.6** The Surveyor carries out the survey in accordance with an application, drawn up and accepted for execution in due order, which determines the type and scope of the survey.
- **2.5.2.7** Upon receipt of the application, the Surveyor carries out preparations for a forthcoming survey: reviews the results of previous surveys and checks the availability of requirements on the basis of the ship file materials;

considers the potential representative defects of plants of the same type by the Branch Office and Shipowner's materials;

keeps under control the availability of current circular recommendations on the matter;

determines the forms of documents to be prepared resulting the survey and their circulation;

specifies the type and method of payment for the work executed and a need of preparing payment documents (by agreement with the Branch Office's Head).

- **2.5.2.8** The Survey performing survey of the refrigerating plant of a specific ship shall know the design of the refrigerating plant and its components, system diagrams, rules for the technical operation of the plant and safety regulations for its maintenance.
- **2.5.2.9** Prior to survey on board, the Surveyor considers entries in the operating technical documentation of the refrigerating plant (in log books and maintenance record) in order to identify:

defects revealed since the last survey and methods of their elimination;

openings-up, examinations and measurements of components made during the period since the last survey and their results;

repairs made since the last survey and their workmanship;

modifications (or their absence) in the design of the refrigerating plant.

Where the refrigerating plant components were replaced and repaired without the Register technical supervision, the Surveyor verifies the certificates of conformity for the equipment and materials replaced (if required by the Nomenclature of technical items to be surveyed) and the workmanship of the repairs made.

After considering the entries on defects since the last survey, repairs, replacements, etc., the Surveyor makes a decision on the potential updating of the prepared survey plan towards its extension (checking opening-up of components, operation test, etc.).

## 2.5.3 Surveys.

- **2.5.3.1** During technical supervision of ships in service, annual, special, continuous and occasional surveys are carried out in order to maintain the Register class of a classed refrigerating plant and to ensure the safe operation of the unclassed one.
- **2.5.3.2** The refrigerating plant, which is for the first time submitted to the Register on board shall be subject to an initial survey.
- **2.5.3.3** At above surveys of a refrigerating plant and/or its components, the Surveyor shall carry out the following types of examinations, tests and checks (see also Table 2.1, Part IV "Surveys of Refrigerating Plants" of the Rules):

external examination;

internal examination;

examination with free access, opening-up and dismantling provided;

control of wear measurements (on the Surveyor's demand);

hydraulic tests;

pneumatic pressure tests (for tightness);

vacuum pumping (tightness test);

tightness test of systems and equipment in operation;

check of the safety valves adjustment;

control of the calibration dates of instrumentation;

check adjustment of regulation, automatic protection and alarm devices;

operational testing;

check of achievement and maintenance of specified temperatures in refrigerated spaces, and the duration of a freezing cycle in freezing chambers.

# 2.5.4 Annual survey.

**2.5.4.1** At annual survey of refrigerating plant and its components, the Surveyor performs in series the following:

external examination;

control of the calibration dates of instrumentation;

verification of measurements of cabling and electrical equipment insulation resistance;

check of the safety valve adjustment;

operational testing;

tightness test of systems and equipment in operation;

check of the adjustment of regulation, automatic protection and alarm system (AS).

- **2.5.4.2** The Surveyor starts with the general external examination of a refrigerating plant and spaces, and makes sure that the plant is prepared for surveying (no repairs and assembly, foreign objects, contaminated spaces, clearly visible system leakages, etc.).
- **2.5.4.3** The external thorough examination continues along with the testing of systems and equipment in operation.
- **2.5.4.4** The Surveyor terminates survey if the general external examination reveals that the plant is unprepared for the survey in general due to incomplete repair and assembly works or to the presence of other serious defects.
- **2.5.4.5** The Surveyor verifies that the instrumentation calibration dates have not expired at the time of survey.
- **2.5.4.6** Safety valves of refrigerant compressors, apparatuses and pressure vessels shall be tested to check their adjustment, opening-up and closing, and fit tightness.

The adjustment is generally checked on a specially equipped stand with use of air or inert gas as the working medium. The latter is discharged into water when the valve blows off. The valve opening pressure is determined by a pressure gauge at the instant the air bubbles appear in the water. The closing pressure is read from the pressure gauge at the instant no air bubbles are seen in the water.

The pressure gauge used to check pressure, shall be in good order and have the valid calibration date. The tightness of a valve clack shall be checked by the repeated rise of the working medium pressure up to the design one after closing the adjusted valve upon its actuation. In this case, no air bubbles in water are allowed.

The Surveyor seals the adjusted and checked valves with the Register stamp.

Check of the adjustment, tight closing and sealing of the safety valves may be carried out by the laboratory or other competent body, or the person duly authorized by the Register. In this case, the Surveyor checks the adjustment parameters and the complete set of checked valves with the report of the Register-recognized performer.

The standards for adjusting the safety valves of refrigerating plants, wherein no division into a low pressure and high pressure sides, are:

opening pressure:

not more than  $1,1P_{design}$ ;

closing pressure:

not less than  $0.85P_{design}$ ,

where  $P_{design}$  – design pressure (see 2.2.1, Part XII "Refrigerating Plants" of the Rules for the Classification and Construction of Sea-Going Ships).

The standards for adjusting the safety valves of the refrigerating plants, designed and built in accordance with the previously effective Rules for the Classification and Construction of Sea-Going Ships, and having the division into a low pressure and high pressure sides, are:

.1 for the high pressure side:

opening pressure:

not more than  $1,1P_{design}$ ;

closing pressure:

not less than  $0.85P_{design}$ ;

where  $P_{design}$  = design pressure (see 2.2.1, Part XII "Refrigerating Plants" of the Rules for the Classification and Construction of Sea-Going Ships);

.2 for the low pressure side:

opening pressure:

not more than  $1,1P_{design}l_p$ ;

closing pressure:

not less than  $0.85P_{design}l_p$ ;

where  $P_{designlp}$  = design pressure for the low pressure side (1,6MPa for refrigerants R22 and R717).

**2.5.4.7** Upon completion of the general external examination, checking the dates of instrumentation calibration, checking, sealing and fitting the safety valves in their places, the Surveyor starts with testing the refrigerating plant in operation.

2.5.4.8 At annual survey, test of the refrigerating plant in operation, the Surveyor carries out

thorough external examination of compressors, pumps, fans, apparatuses and pressure vessels, piping and valves. In so doing, the following shall be checked:

absence of leakages of refrigerant, secondary refrigerant and cooling water through gaskets of compressors, pumps, valves, through releasable connections of apparatuses and vessels, piping and valves;

running order of machinery and their prime movers;

running order and accuracy of instrumentation readings;

absence of damages to piping, condition of compensators, mountings and anodic/galvanic protection; running order of control drives of valves including remote drives;

running order of vessels and apparatus mountings, absence of external damages;

accuracy of adjustment and activation of regulation, automatic protection and alarm system;

operation of emergency shutdown of compressors;

operation of arrangements for remote temperature indication and of alarms for refrigerated spaces;

condition of refrigerating machinery spaces, refrigerant store rooms, process equipment operating under pressure, condition of refrigerant and emergency exits;

condition of refrigerated spaces and their insulation;

condition of vent ducts in spaces and of air cooler ducts;

condition and tightness of door closings, hatch covers and vent ducts;

functioning of ventilation including the emergency one;

functioning of the drenching system and water screen system of ammonia refrigerating machinery spaces;

functioning of bilge systems of spaces;

functioning of snowing removal (thawing) systems of coolers and functioning of emergency refrigerant removal systems (to be tested with use of compressed air or steam);

availability of spare parts regulated by the Rules for the Classification and Construction of Sea-Going Ships;

availability of personal protective equipment.

**2.5.4.9** At annual survey, tightness of all refrigerating plant components exposed to refrigerant pressure shall be checked during operation test of the plant.

**2.5.4.10** The most probable locations for leakages in the refrigerant system are:

detachable joints of pipes, valves, apparatuses and vessels;

sealing glands of compressors and refrigerant pumps;

sealing glands (bellows) of stop valves;

loose fit of safety valves.

**2.5.4.11** At annual survey, the tightness of the refrigerant system shall be checked for oil leakages in the system visually and with use of portable leak detectors, and in the ammonia systems, by odour. In this case, a strong odour only indicates the presence of leakages, but gives no idea of their locations. Particular locations of leakage are detected with an indicator paper which turns red in the presence of the ammonia leakage.

The refrigerant leakage is revealed by leak detectors of various types or halide torches. When a halide torch is used, the leakage is identified by the change of a flame colour. It turns:

yellow-green with a minor leakage;

green, blue or dark blue, violet with a considerable leakage.

The flame dies out with a large leakage.

Using the leak detectors, the Surveyor shall follow their operation manual.

If the refrigerant vapour concentration in the refrigerant plant space, wherein the refrigerating plant with fixed automatic gas analysers is installed, exceeds the permissible level, a visible and audible alarm shall be given. The operation of the plant is not allowed if leakages are detected.

- **2.5.4.12** The alarm and safety devices provided, depending on the type of a refrigerating plant, are checked (depending on the type of a plant) for the accuracy of activation for each controlled parameter and for the serviceability of the light displays of the alarm system, and of the audible alarm.
- **2.5.4.13** The settings of alarm and safety devices shall correspond to the parameters specified in the technical documentation for a refrigerating plant.
- **2.5.4.14** Preset values of activation parameters are ensured by their actual variation with the operating plant or by simulating the most actual conditions with use of the procedure given in the technical documentation for a refrigerating plant.
- **2.5.4.15** Compressor protection from discharge pressure (a high-pressure relay) and suction pressure (a low-pressure relay) is checked by the actual change of the pressure in the system of an operating compressor with the use of a relevant valve being slowly and smoothly regulated.

#### 2.5.5 Special survey.

**2.5.5.1** At special survey of the refrigerating plant and its components, the Surveyor in addition to the scope of an annual survey carries out:

examination with free access, opening-up, dismantling of machinery, apparatuses and pressure vessels, piping and valves, insulation;

checking measurements of the wear of machinery, apparatuses and pressure vessels, piping (if needed); hydraulic tests of the secondary refrigerant system and cooling water system;

internal examination of apparatuses and pressure vessels;

pneumatic tests for the tightness of the refrigerant system;

vacuum-tight test of the refrigerant system;

operation test of the refrigerating plant in order to check the capability to reach and maintain the specified temperatures in refrigerated spaces, and the duration of a freezing cycle in freezing apparatuses.

- **2.5.5.2** Prior to examination of the opened-up refrigerating plant components, the Surveyor shall make sure that these are free of refrigerant, secondary refrigerant and cooling water, and the insulation of insulated apparatuses and pressure vessels is removed, where necessary.
- **2.5.5.3** At thorough examination of opened-up compressors, pumps, fans and their prime movers with the disassembling of units and the dismantling of parts, the relevant recommendations on an examination of homogeneous items set forth in 2.4.5, Part II "Survey Schedule and Scope" of the Rules shall be followed.

**2.5.5.4** At internal examination of heat exchangers and pressure vessels, the relevant recommendations on an examination of homogeneous items set forth in 2.4.5, Part II "Survey Schedule and Scope" of the Rules shall be followed with due regard for the following:

examining shell-and-tube apparatuses (condensers, evaporators), emphasis shall be placed upon the examination of tube plates and heat-transfer coils (corrosion, thinning of pipe ends), water covers (corrosion of covers and bulkheads), upon the condition of protectors, foundations and fastenings, the synthetic coating of plates and covers on the inside;

examining evaporators and pressure vessels, emphasis shall be placed upon the examination of the branch pipe and oil trap joints, especially in the lower part of the apparatus and vessel (the visual examination of such places, if necessary, shall be carried out on the instructions of the Surveyor, and their insulation shall be partially removed).

- **2.5.5.5** The Surveyor shall check the results of measurements of parts, clearances, residual thicknesses performed by the Shipowner by due date for such measurements according to a maintenance manual, thus assessing the technical condition of items. Where the pertinent measurements are lacking, these shall be executed upon the Surveyor's request in compliance with the instructions of the mechanism Manufacturer. With the significant wear resulting internal and external examinations, the measurements of the residual thicknesses of walls of ships, apparatuses, pipes, shall be carried out on the Surveyor's request by a non-destructive testing procedure.
  - **2.5.5.6** Hydraulic tests of secondary refrigerant system and cooling water system.
- **2.5.5.6.1** Each hydraulic test of the secondary refrigerant and cooling water system (at ship's special surveys starting with the second one) shall follow thorough examination. Prior to the hydraulic test, all the defects revealed during the thorough examination shall be eliminated, valves shall be reassembled and valves shall be ground in. The insulation within 100 mm on either side of flanges and at bends shall be removed; where needed, the insulation may be removed altogether.
  - 2.5.5.6.2 Test pressure shall be taken equal to the working one.
- **2.5.5.6.3** The system is considered to have passed the test if no cracks, ruptures, visible residual deformations, leaks and similar defects are found.
  - **2.5.5.7** Hydraulic tests for strength.

On the Surveyor's request, the apparatuses and pressure vessels shall be subject to the hydraulic test for strength where significant wear is found, as well as after their substantial repairs. In this case, the test pressure is taken in accordance with Section 12, Part XII "Refrigerating Plants" of the Rules for Construction.

- **2.5.5.8** Pneumatic tests are carried out upon the completion of thorough examination. The pneumatic tests specified in this Section for compressors, apparatuses, vessels, piping and valves operating under the refrigerant pressure, for freezing and cooling apparatuses are carried out at the test pressure equal to the design one.
  - 2.5.5.9 The following recommendations shall be followed during pneumatic tests:

prior to the test commencement, insulation shall be removed at detachable joints of apparatuses, ships and piping;

pneumatic tests are carried out with use of dry air, carbon dioxide or nitrogen at the test pressure equal to 1,2 MPa for refrigerant R134A and 2,0 MPa for refrigerants R22 and R717.

**2.5.5.10** During tests, the refrigerating compressors shall not be used in order to reach the required pressure.

In extraordinary cases, the refrigerating compressors may be used for air delivery provided the difference between the delivery pressure and suction pressure does not exceed 1,2 MPa for ammonia and freon 22, and 800 kPa for freon 12. In this case, the temperature of the air delivered shall not exceed 135°C.

**2.5.5.11** During testing, the entire system shall be pressurized for a period of 18 hours with the pressure to be recorded every hour. The pressure drop within the first six hours shall not exceed 2 per cent. During remaining 12 hours, the pressure shall not change provided the ambient air temperature remains constant; otherwise, the pressure shall be recalculated by the formula:

$$P_{final} = P_{start} \frac{273 + t_{final}}{273 + t_{start}},$$

where  $P_{final}$  and  $P_{start}$  = an absolute system pressure at the end and the beginning of tests, respectively, Pa;  $t_{start}$  and  $t_{final}$  = air temperature in the space at the beginning and the end of tests, respectively,  $^{\circ}$ C.

- **2.5.5.12** If permissible tightness parameters are not reached, repeated tests shall be carried out after eliminating leakages.
- **2.5.5.13** After tightness tests, in order to check the emergency discharge of refrigerant, the pressure release is carried out by the alternate opening of valves at an emergency discharge station.
- **2.5.5.14** The tightness tests of the refrigerant system, which are specified for refrigerating plants operating on Group I refrigerants, shall be subjected to vacuum-tight tests down at the residual pressure of not more than 1,0 kPa, and the system shall be kept under vacuum within 12 to 18 hours after completion of the vacuum-tight test.

Over this time, the pressure in the system shall not rise by more than 0,65 kPa and not more than 0,15 kPa within the first hour.

Prior to tightness test, the refrigerant system shall be dried, usually by vacuum, which shall be continued during six hours after reaching the residual pressure specified for the tightness test (1,0 kPa).

- **2.5.5.15** If permissible tightness parameters are not reached, repeated leak tests shall be carried out and, after eliminating leakages, the vacuum tests shall be repeated.
- **2.5.5.16** At special surveys of the classed refrigerating plant, operation test of the latter shall be carried out in order to check the capability of achieving and maintaining the specified temperatures in refrigerated spaces, freezing apparatuses and other cooling devices.

During these tests, the temperature in refrigerated spaces shall reach the lowest specified level and be maintained during 16 hours. The time of achievement of the lowest possible specified temperature for each refrigerated space shall be recorded in the Report on Survey of Classed Refrigerating Plant (Form 6.3.47).

During the tests, the functioning of automatic control and regulation, as well as of local (manual) control, if any, shall be checked.

Temperature in cargo refrigerated spaces shall be measured each hour. Temperature variations in these spaces shall not exceed the parameters specified by the technical requirements for the refrigerating plant for the specific conditions of its operation. In the absence of such requirements, the temperature variations shall be within  $\pm 2^{\circ}$ C.

Upon completion of operation tests, the plant shall be shut down and the rise of temperature inside refrigerated spaces, an ambient air temperature and sea water temperature, as well as temperatures in the spaces adjacent to the refrigerated ones shall be measured. Such tests shall also be carried out if the insulation design was changed during the repairs or replacement of the insulation. This check of the refrigerated space insulation for refrigeration loss is carried out for comparing with the results of previous (as-built) tests. Where the Surveyor questions the workmanship of insulation or after the replacement of the equipment affecting the maintenance of specified temperatures in refrigerated spaces, the tests with the simulation of design thermal loading by means of additional heaters may be required in compliance with Appendix 3, Section 11 "Refrigerating plants" of the Guidelines on Technical Supervision of Ships under Construction.

The specified parameters of the operation test shall correspond to the as-built ones.

## 2.5.6 Occasional surveys.

At occasional surveys of the refrigerating plant, the Surveyor makes use of this Chapter recommendations on surveying refrigerating plants in service in the scope corresponding to the type and the scope of the occasional survey being carried out.

### 2.5.7 Continuous survey.

- **2.5.7.1** Continuous survey of the refrigerating plant is carried out in accordance with the Instruction for Continuous Surveys of Ships (see Annex 2) and with the approved continuous survey list of the plant.
- **2.5.7.2** At continuous survey of the refrigerating plant components and the plant at large, the Surveyor shall follow the relevant recommendations in 2.5.4 and 2.5.5 on the performance of examinations, tests and checks as applied to a particular component and the type of survey.

#### 2.5.8 Initial survey.

**2.5.8.1** The scope of initial survey of refrigerating plant is determined by the Surveyor each time on the basis of Table 2.1, Part IV "Survey of Refrigerating Plants" of the Rules for the corresponding special survey for class renewal depending on the age and the technical condition of the refrigerating plant.

Assessing the scope of initial survey, the Surveyor shall follow the provisions of 1.6, Part IV "Survey of Refrigerating Plants" of the Rules.

**2.5.8.2** At initial survey of a refrigerating plant, to be checked is the conformity of design, layout and installation of machinery, apparatuses, pressure vessels and other items of technical supervision, equipment of refrigerating machinery rooms, refrigerant store rooms and process equipment rooms, as well as electrical equipment, to the requirements of the Rules for Construction.

The classed refrigerating plants shall be checked for the capability of achieving and maintaining the specified temperatures in refrigerated spaces and for the duration of a freezing cycle in freezing apparatuses, as well as for the conformity to the requirements for the refrigerated spaces equipment and insulation. The technical condition of supervision items shall be assessed considering their workmanship.

At this survey, the Shipowner shall submit technical documentation to the scope required for verification of the fulfilment of the technical requirements of the Rules, as well as the ship documentation (documents of classification societies and other competent supervisory bodies, Manufacturer's certificates, etc.).

The list of the technical documentation required is specified in 1.6.3 and 1.6.4, Part IV "Surveys of Refrigerating Plants" of the Rules.

**2.5.8.3** Requirements for examinations, checks and other actions during initial survey are given in 2.5.4 and 2.5.5.

#### 2.5.9 Documents.

- **2.5.9.1** On the results of the survey performed, the Surveyor issues the documents which forms and circulation are specified in the Procedure for Application of the RS Document Forms Issued during the RS Technical Supervision.
- **2.5.9.2** Results of annual survey of unclassed refrigerating plant are entered in Section 12 of the Report on Annual/Intermediate Survey of Machinery Installation, Systems (Form 6.3.8).
- **2.5.9.3** Results of the survey of classed refrigerating plant are entered in the Report on Survey of Classed Refrigerating Plant (Form 6.3.47), and the Classification Certificate for Refrigerating Plant (Form 3.1.4) shall be confirmed.
- **2.5.9.4** Results of the special survey of unclassed refrigerating plant are entered in Section 8 of the Report on Special Survey of Machinery Installation and Systems (form 6.3.13).
- **2.5.9.5** On the results of special survey of classed refrigerating plant, the Report on Survey of Classed Refrigerating Plant (Form 6.3.47) shall be drawn up, and the new Classification Certificate for Refrigerating Plant (Form 3.1.4) shall be issued provided the survey results are satisfactory.
- **2.5.9.6** Results of occasional and continuous surveys shall be entered in the Report on Survey of the Ship (Form 6.3.10). In case of continuous survey, the relevant notes shall be made in the continuous survey list.

If occasional survey of a classed refrigerating plant is carried out in order to extend the terms of special survey, a note on class extension is made in Section "Temporary restrictions and remarks" of the Classification Certificate for Refrigerating Plant (Form 3.1.4) provided the survey results are satisfactory.

**2.5.9.7** Results of initial survey of an unclassed refrigerating plant are entered in the Report on Survey of Machinery Installation, Systems after Completion of Ship Construction/Initial Survey (Form 6.3.3) and for a classed refrigerating plant, in the Report of Survey of Classed Refrigerating Plant (Form 6.3.47), whereupon the Classification Certificate for Refrigerating Plant (Form 3.1.4) shall be issued.

# 3 PROCEDURE FOR ISSUING THE REGISTER DOCUMENTS DURING TECHNICAL SUPERVISION OF SHIPS' CONVERSION, MODERNIZATION AND REPAIR

#### 3.1 GENERAL

**3.1.1** Directions on technical supervision of ships' conversion, modernization and repair are given in 4.9, Part II "Survey Schedule and Scope" of the Rules and in the MR on Repair.

# 3.2 TECHNICAL SUPERVISION PROCEDURE FOR SHIPS' CONVERSION, MODERNIZATION AND REPAIR

**3.2.1** The survey of items of technical supervision shall be carried out by the Surveyor upon submission of the items of technical supervision by the firm or the scope of work completed by them.

Based on the results of performance of each stage of repair the report drawn up by the firm shall be submitted to the Register.

Surveys and checks during technical supervision of conversion, modernization and repairs are carried out by the Surveyor to the Register upon submission of Final Acceptance Certificate (FAC) by the ship repair yard with regard to the items of technical supervision.

In case of unsatisfactory results of survey of any item of supervision by RS the firm shall resubmit it to the Register.

If any defects, deficiencies or deviations from the approved documentation are found, the Surveyor to the Register shall require their elimination and re-survey. The scope and methods of repair shall be agreed with RS.

If defects are found at any stage of conversion, modernization and repair, the Surveyor to the Register shall require verification of previous operations to identify the causes of defects and prevent their occurrence in the future.

- **3.2.2.** Prior to installation of replaceable components, mechanisms, arrangements and equipment Surveyor to the Register shall make sure that the items of technical supervision have documents verifying their manufacture or conversion, modernization and repair under technical supervision by the Register. In reaso-nable cases it is allowed to accept documents issued by Classification Society IACS member.
- **3.2.3** Prior to testing the documents verifying that all the remarks received at the previous stages of technical supervision, shall be submitted to the Surveyor to the Register.

Tests shall be carried out in accordance with programs and techniques agreed by the shipowner and approved by the Register.

The test program for the repaired machinery, arrangements, systems and equipment of the ship shall contain technical requirements and necessary explanations, descriptions and methods in accordance with the relevant Sections of the Guidelines.

**3.2.4** The Surveyor to the Register shall carry out the following periodical checks of a firm: the quality of control operations carried out by firm, of manufacture and conversion, modernization and repair of components and structural elements which are the parts of items of technical supervision, as well as the sequence of technological processes of conversion, modernization and repair of the items of technical supervision to ensure its quality.

Thus, particular attention shall be given to identification of flaws and defects, which can not be detected at survey after completion of works.

The Surveyor to the Register shall determine the frequency of checks depending on the scope of works, type of the item of technical supervision, quality of work performed by the ship repair yard and the conditions of production.

- **3.2.5** The Surveyor to the Register may carry out surveys which are not connected with the technical supervision on conversion, modernization and repair of particular ships but arising from the Register functions at the processing or prescribed by the Rules, Guidelines and other normative documents of the Register.
- **3.2.6** Overall requirements on checks and surveys during conversion, modernization and repair are given in the Guidelines. If the performance requires implementation of the specific standards not available either in the Rules or the Guidelines, the Surveyor to the Register shall use the approved technical documentation including standards, specifications, technological instructions.

#### 3.3 TECHNICAL SUPERVISION ON TEMPORARY REPAIR

- **3.3.1** Temporary repair shall be allowed in such cases when it is impossible to perform thorough and prompt repair of hull structures, machinery, systems, equipment, arrangements etc., and when the safe operation of the ship is provided for the whole period until the thorough repair taking into consideration Annex 17.
- **3.3.2** When taking a decision on performance of temporary repair, the Surveyor to the Register shall be guided by the relevant provisions of the Rules and, where applicable, shall agree decision taken by RHO or the RS Branch Office for in-service supervision.
- **3.3.3** In some cases, repair work may be carried out by the ship crew during the voyage (riding repair) under the following conditions:
- .1 in case the hull, machinery or equipment repair which may affect change of the ship class, is intended to be made by the ship crew during voyage, it shall be scheduled in advance;
- .2 the entire repair procedure, including the scope of the intended repairs and the need of the Surveyor's attendance during the voyage, shall be submitted to be considered and agreed with the RS Ships in Service Division in advance;
- .3 if the RS Branch Office for in-service supervision is not notified about repair during a voyage in due time the ship class shall be suspended;
- .4 where in any emergency circumstance the emergency repairs are to be effected immediately, the repairs shall be documented in the ship's log and submitted thereafter to the Register for use in determining further survey requirements;
- .5 riding repairs to primary hull structures may be agreed by the RS Head Office as an exception in extreme circumstances only;
- .6 where agreed with RHO, at any types of intended repair for primary hull structures (e.g. primary longitudinal and transverse members and their fixing), these shall be submitted to the Register for assessment by the RS Branch Office for in-service supervision prior to the commencement of repair during the voyage;
- .7 during the voyage any repair works to primary hull structures shall be carried out under the Surveyor to the Register supervision during the voyage or at regular intervals specified by RS to confirm fulfillments of works, compliance of works done to the RS Rules. Upon completion of repair works of primary hull structures the NDT methods approved by RS shall be applied.
  - .8 repair to other hull structural parts may be accepted by examination upon completion of repair;
- .9 no hull repair carried out by the ship crew shall be accepted by the Surveyor to the Register unless: the matters specified in 3.3.4 have been initially discussed with the Shipowner,
  - or the repairs documents are adequate to assess the repairs scope and quality;
  - the survey results after repairs are considered satisfactory, or such survey had been in general carried out;
- .10 when, as a result of the repair work during the voyage, according to the Surveyor to the Register there is no need to maintain an additional claim of a full repair, such a repair may be considered as full (continuous) repair. Otherwise, repair work during the voyage shall be considered as a temporary repair;
- .11 the above does not include the maintenance and overhaul of the hull, machinery and equipment in compliance with the procedures recommended by manufacturer's and with the established marine practice

which does not require approval by RS. However, any repair as a result of such maintenance and overhaul, which affects or may affect the ship's class change, shall be recorded in the ship's log and brought to the notice of the attending RS Surveyor for use in establishing further requirements for surveys;

**3.3.4** Prior to the commencement of the hull structures repairs during the voyage a shipowner shall be guided by the following provision (it is recommended to arrange meeting between shipowner and the Surveyor to the Register before repair works):

capability of ensuring the quality of repairs including ensuring the longitudinal strength and watertightness/tightness under service conditions shall be related to the shipowner's responsibility;

scope of intended repairs submitted by the Shipowner as the specifications of repairs agreed with the Register (the Register-agreed specifications of repairs shall be kept on board and provided to the Surveyor conducting the repair survey);

the necessary drawings shall be available onboard the ship;

all repair works shall be agreed with the Register and carried out in accordance with the requirements of the RS Rules;

check of the materials used for repairs, submission of certificates for materials; check of welding consumables (verification of welding certificates and check of compatibility with the materials used during repair); check of using drying ovens, storage containers, etc.; verification of the qualification of welders and supervisory personnel (qualification records shall be kept on board and provided to the Surveyor to the Register examining the repairs made) shall be provided;

estimation of the scope of planned presentations to the Register; assessment of provision of necessary working conditions (e.g. staging, lighting, ventilation, etc.); assessment of the quality verification procedures shall be done;

analysis of planned measures for welding quality providing (in particular, cleaning, preheating (if needed), the strict observance of welding procedure principles; limiting conditions for welding, where needed, and its prohibition in inconvenient positions when ship rolling may affect the welding quality) shall be done;

upon completion of repair work relevant checks and tests (if necessary, under the RS supervision) shall be carried out.

Upon the results of analysis of above mentioned queries the report shall be drawn up. The copy of the report shall be available on board and be submitted to the Surveyor to the Register to carry out survey upon completion of repair. The copy of the Report shall be mailed/faxed to the Branch Office for in-service supervision for the final check of the repair made.

**3.3.5** The results of supervision on temporary repair shall be drawn up in report (Form 6.3.10) and ship's survey status by introducing requirement for the necessity of performance of thorough repair at specified time in accordance with the provisions of Annex 17. In case, the possibility to impose requirement subject to through repair was agreed with RHO and ship's flag state MA, the surveyor to the Register shall follow the additional instructions of RHO and flag state MA, in particular, subject to issuance of short term (conditional) certificates.

The Surveyor to the Register shall describe the scope of repair, alteration or renewal of structures, machinery and equipment. If conditions which need to be rectified at further planned repairs or in prescribed terms, and if it is necessary to pay attention on some items during next surveys, relevant requirements is to be stated in RS reports. Where necessary to carry out thorough repair, the Surveyor to the Register shall be guided by the provisions of Annex 17 to the Guidelines.

# 3.4 PROCEDURE FOR ISSUING THE REGISTER DOCUMENTS DURING TECHNICAL SUPERVISION OF SHIPS' CONVERSION, MODERNIZATION AND REPAIR

**3.4.1** Upon the results of preliminary examination before repair the RS Report on Survey (Form 6.3.10), or the Record Book (Form 6.3.48r or Form 6.3.48e, as applicable) shall be drawn up and issued to the ship for the period of repair.

When the ship is under repair including when it is being under intermediate or special survey, the above specified RS records shall reflect the following:

(if applicable) results of survey planning meeting, including: date of the meeting, planned scope of survey and repair, information on arrangements for safety and efficiency of the survey, information on the meeting attendees;

confirmation that the shipowner's representative, appointed for repair and being in charge of execution of repair has been made conversant and agrees with the applicable requirements of the RS rules, international conventions, codes and instructions of the Flag State MA;

sequence and stages of repair works and testing;

facts of the RS surveyor attendance of the ship under repair and results of each visit;

remarks made by the RS surveyor and conditions imposed before the ship repair is completed;

confirmation of elimination of the earlier recorded remarks and compliance with the requirements.

If the Record Book (Form 6.3.48r or Form 6.3.48e, as applicable) has not been drawn up, in order to reflect the progress of repair and for the traceability of the RS surveyor's actions, a separate Report (Form 6.3.10) shall be drawn up by the surveyor (or a group of surveyors) at every attendance of the ship specifying information on the RS surveyors, purpose, circumstances and results of each attendance, the remarks made and the imposed requirements. A Check-list (Form 6.1.0.1) can be used instead of the Reports (Form 6.3.10), which shall contain the same information as in the Reports (Form 6.3.10), or in the Record Book (Form 6.3.48). In order to avoid loss of information on the progress of repair works it is recommended that all the Reports (Form 6.3.10), and the Record Book (Form 6.3.48) issued to the ship with endorsement on receiving the original items by the shipowner's authorized representative be kept either in electronic format or in a hard copy. The shipowner or its authorized representative shall be responsible for keeping the mentioned documents during repair and survey of the ship.

When supervising the ship repair the RS surveyor shall assume that the shipowner or its authorized representative is acknowledged and agrees with the expected scope of survey, specified in the applicable requirements of the RS rules, international conventions, codes and the Flag State MA instructions. The RS documents issued by the surveyor upon the results of the preliminary examination before repair might not contain limiting scope of all the applicable examinations, checks and tests (in separate cases such information is contained in the Reports issued by external companies or the ship's crew).

Provided the survey results, the assessment of technical condition included, the repair of the items of technical supervision is required, the surveyor shall follow the provisions of Appendix 17 to the Guidelines with respect to imposing requirements. The survey results including actions taken shall be documented in a chronological sequence and by completeness of actions so that they can be verified promptly.

**3.4.2** The results of the RS technical supervision of repair, carried out during the period that does not coincide with periodical surveys, either the RS technical supervision results of conversion/modernization and repairs that require the application of the special Register decisions, shall be drawn up as the RS Report (Form 6.3.10). The RS Report shall be drawn up in compliance with 3.4.4 and/or 3.4.5.

In those cases when the performed repair works (except for the repairs on ESP ships) are duly and in details described (refer to 3.4.4) in the Record Book (Form 6.3.48r or Form 6.3.48e, as applicable), it is not necessary to draw up a separate Report (Form 6.3.10). A separate Report (Form 6.3.10) can be drawn up by the RS surveyors upon a request by the shipowner or his/her authorized representative.

The supervision results of temporary repair shall be registered by the RS surveyor in compliance with 3.3.5.

**3.4.3** The results of repair works performed during periodical surveys, shall be drawn up using the STORM system: in check-list (Form 6.1.01) with mandatory introducing of the information in the Ship survey statement (Form 6.1.03) (refer to the User Manual of STORM system

If description of a significant scope of works is required, as well as if STORM system is not used (in well-grounded cases), the RS surveyor shall draw up a separate Report (Form 6.3.10).

In those cases when the performed repair works are in details described in the Record Book (Form 6.3.48r or Form 6.3.48e, as applicable), Reports (Form 6.3.10 etc.), issued by the Register to a ship during

repair, there is no need to repeatedly specify all the scope of the works in the RS reports, records and check-lists, drawn up upon completion of the repair, it shall be sufficient to give a reference to the relevant RS records, which have been issued earlier. Recording of results of the performed repair works in the Record Book (Form 6.3.48), not permitted for ESP ships.

The RS records upon the results of the performed repair shall be drawn up in compliance with 3.3.5 and/or 3.4.5

**3.4.4** In the RS records upon the results of the completed repair the following information as applicable shall be stated:

type of survey at which the repair was completed;

short information on causes of repair of item (with the reference to fault detection reports etc.);

description of the repaired items providing information on the name and location;

detailed description of repair extent and methods (complete or part renewal, strengthening and so on), including the material class and grade, dimensions, relevant photos, sketches;

information on availability of the RS certificates (or in reasonable cases — classification societies — IACS members) on spare parts, materials and products;

methods and results of tests performed, including NDT methods and subsequent examinations.

**3.4.5** In the RS records issued based on the results of conversion, modernization shall contain, as a minimum, the following data:

type of survey when the conversion /modernization is carried out;

a brief information on conversion /modernization (reason, information on the availability of the approved information, letter(s)-conclusion(s);

general description of the scope of work performed to prove completion of the conversion/modernization process, including the appropriate photos (when the scope is not completed — the scope of remaining uncompleted work shall be specified in detail with the reference to the appropriate drawings, diagrams, etc.);

information on the availability of the RS Certificate for equipment, materials and products; methods and results of the tests performed.

**3.4.6** In addition to provisions of 3.4.1, 3.4.2, 3.4.3, the RS records drawn up upon the results of technical supervision of conversion, modernization or repair, allow not to give the required description of the work performed, provided they contain references to reports, acts, protocols of external organizations (specifying their identification numbers, dates, name of the organization etc.) and fulfill the following conditions:

the RS surveyor shall make sure, that the reports, acts, protocols of the external organizations contain all the necessary and required information on the works performed, which complies with the RS requirements, and is translated in English, unless originally is in English (only for the ships engaged in international voyages, as well as for the ships flying the flag other than the RF flag);

copies of these reports, acts, protocols, certified by the RS surveyor signature and stamp, shall be sent by the RS Branch Office carrying out the ship survey to the Ship's File.

# 4 PROCEDURE FOR SUSPENSION, WITHDRAWAL, REINSTATEMENT AND REASSIGNMENT OF RS CLASS

#### 4.1 GENERAL

## 4.1.1 Application

**4.1.1.1** Provisions of this Procedure shall apply to all ships of the RS class irrespective of whatever type, self propelled or not, gross tonnage and restrictions on navigation area and conditions.

Provisions of this Procedure shall apply in full to ships of inland navigation.

The Procedure fully takes into consideration the provisions of IACS Procedural Requirement 1C.

## 4.1.2 Definitions and explanations

**4.1.2.1** In addition to definitions given in Section 2, Part I of the Rules, the following definitions have been introduced in this Section:

Recommendations and Conditions of Class in this Section are different terms used to define the term "requirement" related to specific measures, repairs, surveys, etc. to be carried out within a specific time limit in order to retain class.

Disclassed is a ship with suspended or withdrawn class.

Dual class is a class of a ship classed with two societies entered into an agreement on a dual class. In this case, one such classification society in performing classification survey for confirmation/renewal of its class, acts independently of the other society and in conformity with the requirements of its rules as it would act in the case of the ship being classed with this society alone.

Technical Committee of the Regulations for Technical Committee.

Force Majeure:

unforeseen impossibility to attend the ship by a surveyor to the Classification Society to carry out ship's survey due to governmental restrictions on access onboard;

unforeseen delays in port or inability to discharge cargo due to unusually lengthy periods of severe weather, strikes or civil strife;

acts of war;

other force majeure.

## 4.1.3 Monitoring terms of surveys and settling of accounts

- **4.1.3.1** The RS Branch Offices for in-service supervision shall carry out daily operational verification:
- .1 validity of classification documents;
- .2 terms of periodical classification surveys specified in the List of Survey's Status;
- .3 due dates of requirements (recommendations/conditions of class);
- .4 dates of submission of items of technical supervision as per the Continuous Survey list attached thereto:
  - .5 due dates of settling accounts and settlement of the debts;
  - .6 duration of class status code 16 "Class valid, the ship is under survey," taking into account 4.2.9;
- .7 period of class suspension including duration of class status code 28 "Class suspended (ship is under survey for class reinstatement)".
- **4.1.3.2** All RS Branch Offices shall monitor the settlement of issued accounts for the rendered services.
- **4.1.3.3** By results of daily verification, the RS Branch Office for in-service supervision shall carry out the following procedure:
  - .1 class suspension of ships with overdue terms of prescribed surveys (refer to 4.2.1 to 4.2.6);
  - .2 class suspension of ships with overdue terms of settling the debts (refer to 4.3);
  - .3 class withdrawal of ships with class suspension period exceeding the specified period (refer to 4.5).

- **4.1.3.3** Respective written notifications with specified causes shall be sent to the shipowner and Flag State MA for each case of class suspension or withdrawal (refer to 4.9).
- **4.1.3.4** The shipowner may dispute class suspension or withdrawal if he provides RS with objective evidence of the ship timely submission for surveys (survey materials not recorded in the List of Survey's Status for some reason), presence of force majeure or settling of the debts timely.

In this case class suspension shall be deleted, the ship class shall be considered valid and the shipowner as well as Flag State MA shall be informed in compliance with 4.9.

If other causes for class suspension occur by the moment of class reinstatement, new procedure for class suspension shall be carried out.

**4.1.3.5** Ship class status codes used in this Procedure shall comply with Thesaurus No. 30 of the Code book.

## 4.1.4 Remaining reasons for suspension or withdrawal and class status code.

- **4.1.4.1** The status code of the suspended class shall remain the same till its reinstatement, withdrawal or transfer to status code 28 "Class suspended (ship is under survey for class reinstatement)" even if other reasons for suspension (overdue survey or settling of accounts) occur within this period.
- **4.1.4.2** If class withdrawal is the result of its suspension, the class shall be withdrawn in compliance with 4.5 for the same reason for suspension.
  - **4.1.4.3** Status code of the withdrawn class shall not be verified and shall remain same.
- **4.1.4.4** Irrespective of provisions of 4.1.4.1 if the ship class is initially suspended for a financial reason (refer to 4.3) and at the moment of settling debts the new causes for class suspension occur (refer to 4.2.1 to 4.2.6, 4.3 or 4.7), initial class status code 27 "Class suspended (non-safety related reasons)" shall be changed with the respective one from the moment of new reasons for suspension. Period of suspended class shall be counted again in new class status code and shall not exceed the terms specified in 4.5.1 considering 4.5.6.
- **4.1.5** For ships under special surveillance regime (SSR) provisions of 4.5.4 and 4.5.5 shall be considered in compliance with 4.8, Part II "Survey Schedule and Scope" of the Rules.

## 4.1.6 Application conditions for status codes of suspended class.

- **4.1.6.1** When using class status code 26 "Class suspended (non-compliance with recommendations and/or conditions of class)", specific reasons for class suspension shall be entered in "Memoranda for Shipowners and Surveyors" of Section "Classification Surveys" in the List of Survey's Status.
- **4.1.6.2** Validity of class status codes of suspended class 21 "Class suspended (casuality)", 22 "Class suspended (survey overdue)", 24 "Class suspended in lay-up (survey overdue)", 26 "Class suspended (non-compliance with recommendations and/or conditions of class)" and 27 "Class suspended (non-safety related reasons)" shall not exceed terms specified in 4.5.1 considering 4.5.6.
- **4.1.6.3** Application of class status code 28 "Class suspended (ship is under survey for class reinstatement)".
- **4.1.6.3.1** If during survey of the ship for class reinstatement, the maximum period of class presence in suspended status is over (refer to 4.5.1), the ship class may not be withdrawn and remain suspended if the provisions of this para are implemented. In this case, the class is transferred to class status code 28 "Class suspended (ship is under survey for class reinstatement)".
- **4.1.6.3.2** Class status code 28 shall be assigned only upon expiry of the previous code 21 "Class suspended (casuality)", 22 "Class suspended (survey overdue)", 24 "Class suspended in lay-up (survey overdue)" or 26 "Class suspended (non-compliance with recommendation and/or conditions of class)".
- **4.1.6.3.3** Arrangement of class transfer to status code 28 and change of the class status in compliance with 4.10.4 shall be within competence and responsibility of the RS Branch Office for in-service supervision.
- **4.1.6.3.4** Class status code 28 may be assigned only if at the last date of validity of the previous class suspension code the ship is submitted for survey for class reinstatement in the prescribed scope (refer to 4.6).

The RS Branch Office for in-service supervision shall request the RS Branch Office surveying the ship on meeting the specified condition no sooner than 5 working days prior to the maximum period of class in the suspended state in compliance with 4.5.1.

- **4.1.6.3.5** Class status code 28 shall be assigned from the last date of the prior code of class suspension (refer to 4.1.6.3.2) for the period not exceeding three months. Extension of ship class status in code 28 shall not be permitted.
- **4.1.6.3.6** Shipowner and Flag State MA shall be informed on new reason for class Suspension by sending a respective written notification refer to 4.9.

#### 4.2 CLASS SUSPENSION IN CASE OF OVERDUE SURVEYS

#### 4.2.1 Special survey.

**4.2.1.1** The Classification Certificate shall expire, and classification shall be automatically suspended from the certificate expiry date in the event where:

the Special Survey has not been completed by the prescribed date or the ship is not under attendance for its completion prior to resuming trading, by the due date; or

the Special Survey has not been completed or is not under attendance for completion prior to resuming trading, by the expiry date of extension granted in 4.2.1.2.

The ship class status in case of class suspension shall be transferred to code 22 "Class suspended (survey overdue).

- **4.2.1.2** If due to exceptional circumstances, term of special survey is postponed and validity of classification certificate is extended in compliance with 2.4.1.4.10 of Part II "Survey Schedule and Scope", the Rules, the ship class shall not be suspended.
- **4.2.1.3** The RS Branch Office for in-service supervision shall notify the shipowner on upcoming date of expiry of classification certificate before three months.
- **4.2.1.4** If at the moment of expiry of classification certificate, special survey is carried out but not completed, the ship class may not be suspended. In this case the ship class status may be transferred to code 16 "Class valid, the ship is under survey" (refer to 4.2.9).
  - **4.2.1.5** Class suspension shall be documented (refer to 4.10).
  - **4.2.1.6** The ship class may not be suspended in case of the documented force majeure.

In this case the ship class status shall be transferred to code 15 "Class valid (force majeure)" (refer to 4.2.7).

**4.2.1.7** If the shipowner intends to reinstate classification suspended by RS, the ship class may be reinstated only in compliance with reinstatement procedure specified in 4.6.

However, the ship is considered disclassed from the date of suspension up to the date of class reinstatement.

## 4.2.2 Annual survey.

- **4.2.2.1** The Classification Certificate shall become invalid, and classification shall be automatically suspended if the Annual Survey has not been completed within three (3) months of the due date of the annual survey, either the ship is under attendance for completion of the Annual Survey. The ship class status in case of class suspension shall be transferred to code 22 "Class suspended (survey overdue).
- **4.2.2.2** The RS Branch Office for in-service supervision shall notify the shipowner on upcoming date of expiry of ship submission for annual survey three months prior to completion of annual survey window.
- **4.2.2.3** If at the moment of expiry of survey window, annual survey is carried out but not completed, the ship class may not be suspended. In this case the ship class status may be transferred to code 16 "Class vadid, the ship is under survey" (refer to 4.2.9).
  - **4.2.2.4** Class suspension shall be documented (refer to 4.10).
- **4.2.2.5** The ship class may not be suspended in case of documented force majeure. In this case the ship class status shall be transferred to code 15 "Class valid (force majeure)" (refer to 4.2.7).
- **4.2.2.6** If the shipowner intends to reinstate classification suspended by RS, the ship class may be reinstated only in compliance with reinstatement procedure specified in 4.6.

However, the ship is considered disclassed from the date of suspension until the date class is reinstated.

## 4.2.3 Intermediate survey.

- **4.2.3.1** The Classification Certificate shall become invalid, and classification shall be automatically suspended if the Intermediate Survey has not been completed within three (3) months of the due date of the third annual survey, either the ship is under attendance for completion of the Intermediate Survey. The ship class status in case of class suspension shall be transferred to code 22 "Class suspended (survey overdue).
- **4.2.3.2** The RS Branch Office for in-service supervision shall notify the shipowner on upcoming date of expiry of ship submission for intermediate survey three months prior to completion of third annual survey "window".
- **4.2.3.3** If at the moment of expiry of the survey "window", intermediate survey is carried out but not completed, the ship class may not be suspended. In this case the ship class status may be transferred to code 16 "Class valid, ship is under survey" (refer to 4.2.9).
  - **4.2.3.4** Class suspension shall be documented (refer to 4.10).
- **4.2.3.5** The ship class may not be suspended in case of documented force majeure. In this case the ship class status shall be transferred to code 15 "Class valid (force majeure)" (refer to 4.2.7).
- **4.2.3.6** If the shipowner intends to reinstate classification suspended by RS, the ship class may be reinstated only in compliance with reinstatement procedure specified in 4.6.

However, the ship is considered disclassed from the date of suspension until the date class is reinstated.

# 4.2.4 Bottom survey. Survey of shafting and active means of the ship's steering (AMSS).

- **4.2.4.1** The Classification Certificate shall become invalid, and classification shall be automatically suspended if the bottom survey of the ship (except for cases specified in 4.2.4.3) or shafting or main AMSS survey is not completed within the specified terms. The ship class status in case of class suspension shall be transferred to code 22 "Class suspended (survey overdue).
- **4.2.4.2** The RS Branch Office for in-service supervision shall notify the shipowner on upcoming date of expiry of submission for bottom survey of shafting or main AMSS three months prior to the due date.
- **4.2.4.3** The ship class may not be suspended if at the moment of expiry of the due date, the ship is under attendance for completion of the bottom survey being an integral part of the special, intermediate or annual survey. In this case the ship class status shall be transferred to code 16 "Class valid, the ship is under survey" (refer to 4.2.9).
  - **4.2.4.4** Class suspension shall be documented (refer to 4.10).
- **4.2.4.5** The ship class may not be suspended in case of documented force majeure. In this case the ship class state shall be transferred to code 15 "Class valid (force majeure)" (refer to 4.2.7).
- **4.2.4.6** If the shipowner intends to reinstate classification suspended by RS, the ship class may be reinstated only in compliance with reinstatement procedure specified in 4.6. However, the ship is considered disclassed from the date of suspension until date class is reinstated.

# 4.2.5 Items of continuous survey system.

- **4.2.5.1** The Classification Certificate shall become invalid, and classification shall be automatically suspended if survey of the items of technical supervision in compliance with the continuous survey list attached thereto is not completed within the due terms. In this case the ship class status shall be transferred to code 22 "Class suspended (survey overdue).
- **4.2.5.2** The RS Branch Office for in-service supervision shall notify the shipowner on upcoming date of expiry of submission items of technical supervision in compliance with the continuous survey list attached theirto prior to the due date.
  - **4.2.5.3** Class suspension shall be documented (refer to 4.10).
- **4.2.5.4** The ship class may not be suspended in case of documented force majeure. In this case the ship class status shall be transferred to code 15 "Class valid (force majeure)" (refer to 4.2.7).
- **4.2.5.5** If the shipowner intends to reinstate classification suspended by RS, the ship class may be reinstated only in compliance with reinstatement procedure specified in 4.6. However, the ship shall be considered disclassed from the date of suspension until the date class is reinstated.

## 4.2.6 Recommendations and Conditions of Class (Requirements).

**4.2.6.1** Each imposed requirement shall have a due date in compliance with Section 7, Part I "General Provisions".

- **4.2.6.2** Classification certificate shall become invalid and ship classification shall be automatically suspended if classification requirements imposed by RS are not met within the specified terms. The ship class status in case of class suspension shall be transferred to code 26 "Class suspended (non-compliance with recommendations and/or conditions of class)".
- **4.2.6.3** The RS Branch Office for in-service supervision shall notify the shipowner on upcoming expiry of the requirement due date three months prior to the specified date or immediately after imposing the requirement and updating ship's information to be registered on the RS internal website if the requirement due date is less than three months.
  - **4.2.6.4** Class suspension shall be documented (refer to 4.10).
- **4.2.6.5** The ship class may not be suspended in case of documented force majeure. In this case the ship class status shall be transferred to code 15 "Class valid (force majeure)" (refer to 4.2.7).
- **4.2.6.6** If the shipowner intends to reinstate classification suspended by RS, the ship class may be reinstated only in compliance with reinstatement procedure specified in 4.6. However, the ship is considered disclassed from the date of suspension until the date class reinstated.

## 4.2.7 Force Majeure.

- **4.2.7.1** In case of force majeure reasonably beyond the shipowner's or the Register control, the ship is in a port where the surveys specified in 4.2.1 to 4.2.6 have not been completed at the expiry of the periods allowed above, the Register may allow the ship, in valid class to sail directly to an agreed discharge port and if necessary, hence, in ballast, to an agreed port (the first port of call) at which the survey will be completed, provided the Register meeting the following requirements:
  - .1 the RS Surveyor shall check ship records (ship's log-book, engine room log, etc.);
- .2 RS shall check the due and/or overdue surveys as well as fulfillment of recommendations/conditions of class/requirements at the first port of call when there is an unforeseen inability of the Register to attend the ship in the present por; and
- .3 the RS Surveyor shall confirm that the ship is in condition to sail for one trip to a discharge port and subsequent ballast voyage to a repair facility if necessary. (Where there isunforeseen inability of the Register to attend the ship in the present port, the master shall confirm that his ship is in condition to sail to the nearest port of call).

If class has already been automatically suspended in such cases, it may be reinstated subject to the conditions prescribed in this paragraph.

- **4.2.7.2** In case of force majeure reasonably beyond the shipowner's or the Register control, the ship is not in the port (at sea) or in the port where the RS Surveyor can not carry out surveys specified in 4.2.1 to 4.2.6 due to which they have become overdue, RS may allow the ship in a valid class to sail to the nearest agreed port of call for the following:
- .1 RS shall carry out due and/or overdue surveys as well as check of the fulfillment of recommendations/conditions of class/requirements or
- .2 due to ongoing force majeure the ship shall be submitted to RS for implementation of provisions in 4.2.7.1.

Provisions of this para are applicable in case of written confirmation from the master (with reference to records in ship's log-book and engine room log) that the ship can complete or make a one trip voyage to the nearest agreed port of call.

Surveys at the nearest agreed port of call shall be carried out in scope specified for the prescribed date, i.e. not considering age of the ship on the date of actual submission. Such surveys shall be counted as surveys carried out for class reinstatement/confirmation.

If class has already been automatically suspended in such cases, it may be reinstated subject to the conditions prescribed in this paragraph.

**4.2.7.3** If the ship remains in the port where due to force majeure the RS Surveyor can not carry out or complete the surveys specified in 4.2.1 to 4.2.6, due to which they have become overdue, RS may not suspend the ship class till the end of force majeure.

**4.2.7.4** If the terms of the prescribed surveys and validity of classification certificate expire when the ship is at sea, the shipowner shall take all measures to carry out the prescribed surveys timely at the last port of call when term of such surveys has not expired and classification certificate is effective.

If irrespective of measures taken by the shipowner, terms of the prescribed surveys and validity of classification certificate expire when the ship is at sea, provisions of 4.2.7.2 shall be applied.

- **4.2.7.5** In case of applying provisions of 4.2.7.1, 4.2.7.2 or 4.2.7.3, the ship class status shall be transferred to code 15 "Class valid (force majeure)".
- **4.2.7.6** In order to transfer the ship class status to code 15 "Class valid (force majeure)", the shipowner shall submit objective evidence of force majeure which makes it impossible to complete the survey (to apply provisions of 4.2.7.1 and 4.2.7.3) or submit the ship for survey (to apply provisions of 4.2.7.2 and 4.2.7.3) to RS.
- **4.2.7.7** RHO shall analyze the evidence submitted by the shipowner, decide on transfer of the ship class to code 15 "Class valid (force majeure).
- **4.2.7.8** RHO shall notify the Flag State MA, shipowner and the RS Branch Office for in-service supervision on transfer of the ship class to code 15 "Class valid (force majeure)" specifying that the ship class status may remain in code 15 "Class valid (force majeure)" till the end of force majeure or the nearest port of call of the ship (refer to 4.2.7.1 or 4.2.7.2) and that the shipowner in turn shall submit to the RS Branch Office for in-service supervision timely information on the end of force majeure or arrival of the ship at the port.

The RS Branch Office for in-service supervision updates "Fleet Register" database (refer to 4.10.4).

**4.2.7.9** If at the first port of call or at the port of the ship presence after the end of force majeure, the shipowner immediately (within 24 h after the end of force majeure) applies to carry out a survey and this survey is started by the RS Surveyor, the ship class status may be transferred to code 16 "Class valid, the ship is under survey" (refer to 4.2.9). Otherwise, the ship class shall be suspended by transferring the ship status to code 22 "Class suspended (survey overdue)" (refer to 4.2.1 - 4.2.5) or code 26 "Class suspended (non-compliance of recommendations and/or conditions of class)" (refer to 4.2.6) from the date of overdue survey.

# 4.2.8 Laid-up ships. Ships in conservation.

- **4.2.8.1** Requirements and guidelines to the laid-up ships are given in 4.10.2 of Part II "Survey Schedule and Scope" of the Rules.
- **4.2.8.2** Requirements and guidelines to the ships in conservation are given in 4.11.2 of Part II "Survey Schedule and Scope" of the Rules.
- **4.2.8.3** When overdue the terms of requirements/recommendations/conditions of class imposed on the ship after laying-up, laid-up class of the ship shall be suspended (refer to 4.2.6). The ship class status in this case shall be transferred to code 24 "Class suspended in lay-up (survey overdue). Statement of Laid-Up Ship (Form 3.1.13) becomes invalid.
- **4.2.8.4** When the terms of settling the debts against accounts issued before and after laying-up are overdue, laid-up class of the ship shall be suspended (refer to 4.3). The ship class status in this case shall be transferred to code 27 "Class suspended (non-safety related reasons)".
- **4.2.8.5** When overdue terms of surveys imposed on the ship prior to laying-up (related to "main class"), laid-up class of the ship are not suspended. Information on terms of "the main class" of the ship shall be maintained by the RS Branch Offices for in-service supervision.
- **4.2.8.6** If the ship with suspended "main class" is laid-up due to overdue terms of submission for surveys or settling the debts, "the main class" of the ship remains suspended till eliminating the reason of suspension. "The Main class" status of the ship does not affect laid-up class status of the ship.
- **4.2.8.7** If the laid-up ship with overdue periodical survey related to "the main class" requires passage to repairing yard from the laid-up position, the ship's class suspension may be temporarily canceled (during passage) and RS may consider single a single ballast passage to repairing yard as agreed with the flag MA and if the ship is in satisfactory condition by results of survey carried out in scope determined considering overdue surveys and duration of laying-up.

The issue of passage is considered in compliance with Section 8, Part II "Carrying Out Classification Survey of Ships".

This provision is not applicable to ships with "main class" suspended prior to laying-up.

At the end of the class temporary cancellation period, the ship class shall be automatically suspended from the date of suspension of the class, preceding its temporary cancellation

**4.2.8.8** If the ship class status is imposed to code 16 "Class valid, the ship is under survey" while laying-up, the "main class" of the ship shall be transferred to "laid-up class" of the ship. The ship class status shall be transferred to code 13 "Class valid (laid-up)".

# 4.2.9 Ship class status during survey.

- **4.2.9.1** The ship class during any survey shall remain valid before the prescribed date (considering the granted extension), after which the ship class shall be suspended (refer to 4.2.1—4.2.6).
- **4.2.9.2** If surveys specified in 4.2.1.4, 4.2.2.3, 4.2.3.3 and 4.2.4.3 are commenced but not yet completed upon expiry of the prescribed term, the ship class may not be suspended. In this case the ship class status shall be transferred to code 16 "Class valid, the ship is under survey" (hereinafter referred to code 16) in compliance with the following provisions.
  - **4.2.9.3** Code 16 is applicable to all ships except:
  - .1 ships with the imposed special surveillance regime (SSR);
- .2 ships under major conversion. The conversion (major/minor) shall be determined by RHO in each particular case upon the request by the RS Branch Office carrying out the survey.
  - **4.2.9.4** Code 16 is applicable during following surveys:
- .1 during special survey from the last date of classification certificate validity considering the granted extension, if applicable (refer to 4.2.1.1);
- .2 during annual and intermediate surveys from the last date of the due survey "window" (refer to 4.2.2.1, 4.2.3.1);
- .3 during bottom survey being an integral part of the special, intermediate or annual survey from the last date of the due term (refer to 4.2.4.1 and 4.2.4.3);
- .4 during surveys specified in 4.2.9.4.1 4.2.9.4.3 commenced or resumed after the end of force-majeure in compliance with 4.2.7.9 from the date of overdue survey when it has actually been commenced or resumed.
- **4.2.9.5** Imposing the ship into the ship class status to code 16 shall be carried out by RHO. The RS Branch Office carrying out the ship survey shall send the required request to RHO and its copy to the RS Branch Office for in-service supervision not earlier than three (3) working days but not later than one (1) working day prior to the prescribed date of ship survey completion. The request shall include the following:
- .1 confirmation that the ship survey is commenced before the prescribed date and the ship is actually under attendance for completion of the survey;
- .2 dates of survey commencement and last Surveyor's attendance specified in the Reports on Survey of the Ship and/or Record Book of Technical Supervision During Survey of Ship Under Repair with copies thereof attached;
  - .3 the expected date of completing the ship survey;
- .4 a copy of shipowner's request on retaining the class of the ship under survey specifying the causes of untimely ship survey completion.
- **4.2.9.6** RHO shall advise the RS Branch Office carrying out the survey and the RS Branch Office for inservice supervision on the results of reviewing the request on transferring the ship class status to code 16.
- **4.2.9.6.1** In case of satisfactory results of the RHO issue review, the RS Branch Office carrying out the ship survey shall within one working day forward the Notice on transfer of the ship class status to code 16 in compliance with Regulations for Registration of Ships and Offshore Installations.

While imposing the ship class status to code 16, the RS Branch Office for in-service supervision shall inform the shipowner in writing of invalidity of the Classification Certificate and other certificates, if applicable (considering provisions of 4.2.9.12) from the date of expiry of the due term of completion of the appropriate survey as well as of conditions of retainment of ship class during the survey (refer to 4.2.9.7) and conditions of its suspension (refer to 4.2.9.10).

**4.2.9.6.2** In case of unsatisfactory results of the RHO issue review, the RS Branch Office for in-service supervision shall within 1 (one) working day send the Notice on transfer of the ship class status to code 22 "Class suspended (survey overdue)" (refer to 4.2.1 — 4.2.4) in compliance with Regulations for Registration of Ships and Offshore Installation.

The shipowner and Flag State MA shall be informed of class suspensions in accordance with provisions in 4.9.

In this case, the survey shall be continued in compliance with the procedure for a ship's class reinstatement (refer to 4.6).

- **4.2.9.7** The class of the ship to which code 16 is applied during surveys listed in 4.2.9.4 shall be valid for a period given in 4.2.9.8 (considering 4.2.9.11) provided that the ship is not operated as intended and is actually under attendance for completion of the survey assuming that the ship is attended by the RS Surveyor to perform the scheduled inspections and examinations as prescribed by the Rules for the appropriate type of survey.
- **4.2.9.8** Code 16 shall be assigned for a term not exceeding 90 calendar days. For atomic ships application of code 16 may exceed 90 calendar days in case of long-term repair determined by scheduled maintenance on replacement of nuclear unit radiation zone and/or performance of operations required for prolongation of main equipment life. For atomic ships duration of application of code 16 may not exceed 12 months.

Prolongation of code 16 is not allowed.

- **4.2.9.9** Duration of code 16 application to the ship class status shall be monitored by the RS Branch Office for in-service supervision. Information shall be posted in the RS internal website (Section "Reports on "Fleet" database") in the "List of ships under survey" report.
- **4.2.9.10** The class of the ship under survey with application of code 16 shall be suspended by the RS Branch Office for in-service supervision if:
  - .1 conditions given in 4.2.9.7 are not complied with; or
  - .2 the survey carried out has not been completed within the term specified in 4.2.9.8.

In this case the ship class status shall be transferred to code 22 "Class suspended (survey overdue)" from the date of expiry/extension of the prescribed survey.

- **4.2.9.11** If passage of the ship under survey with code 16 is required to a new place where incomplete survey shall be continued/completed due to objective reasons, the following guidelines shall be used:
- .1 the completed scope of survey shall be issued as "incomplete survey" (refer to 6.3.13 of the Procedure for Application of the RS Document Forms During Technical Supervision);
- .2 ship passage to the new place of survey shall be considered as passage in compliance with Section 8, Part II "Carrying out Classification Surveys of Ships" of the Guidelines;
- .3 the ship class during passage shall be suspended with change of class status code from 16 to 22 "Class suspended (survey overdue)" from the date of completion of the survey prior to passage;
- .4 upon completion of passage, the class status may be reinstated to code 16 from the date of passage completion for a term not exceeding 90 calendar days from the date of introduction of ship class status code 16 "Class valid, the ship is under survey" until passage without considering the passage period under the following conditions:

the provisions of Section 8, Part II "Carrying out Classification Surveys of Ships" of the Guidelines are complied with;

the shipowner shall immediately (within 24 hours after completing the passage) apply to complete the survey.

- **4.2.9.12** For the ships with applied class status code 16, classification certificate shall become invalid. With regard to retaining of the terms of validity of statutory documents and/or other class documents, the guidance of 1.7, Part III "Survey of ships in compliance with International conventions, codes, resolutions and Rules for the Equipment of Sea-Going Ships" shall be followed.
- **4.2.9.13** If the carried out prescribed survey is not completed within due term for code 16 "Class valid, the ship is under survey" (considering extensions), the ship class may be suspended by the RS Branch Office for in-service supervision. In this case the ship class status shall be transferred to code 22 "Class

suspended (survey overdue)" or code 26 "Class suspended (non-compliance of recommendations and/or conditions of class)" from the date of expiry of the prescribed survey.

- **4.2.9.14** If the carried out prescribed survey is not completed within due term for code 16 "Class valid, the ship is under survey" (considering extensions), the ship class may be suspended by the RS Branch Office for in-service supervision. In this case the ship class status shall be transferred to code 22 "Class suspended (survey overdue)" or code 26 "Class suspended (non-compliance of recommendations and/or conditions of class)" from the date of expiry of the prescribed survey:
- .1 the completed scope of survey shall be issued as "incomplete survey" (refer to 6.3.13 of the Procedure for Application of the RS Document Forms);
- .2 ship passage to the new place of survey shall be considered as passage in compliance with Section 8, Part II "Carrying Out Classification Surveys of the Ships";
- .3 the ship class during passage shall be suspended with change of class status code 16 "Class valid, the ship is under survey" to class status code 22 "Class suspended (survey overdue)" or code 26 "Class suspended (non-compliance with recommendations and/or conditions of class)" from the moment of issuing "incomplete survey";
- .4 upon completion of passage, the class status may be reinstated to code 16 "Class valid, the ship is under survey" for the previous term if the results of occasional survey after passage, as required by 8.6.23, Part II "Carrying Out Classification Surveys of Ships" of the Guidelines, confirm that technical condition of the ship have not deteriorated compared to the results of incomplete survey in the previous place of ship submission. The shipowner shall immediately (within 24 h after completing the passage) apply to complete the outstanding surveys and these surveys shall be started by the RS Surveyor.

#### 4.3 SUSPENSION OF CLASS IN CASE OF UNSETTLED ACCOUNTS FOR SERVICES RENDERED BY RS

**4.3.1** By results of any survey the shipowner or the party assigned by the shipowner (the shipowner) shall receive an invoice issued for services rendered by RS.

The shipowner shall settle the issued account within 30 days from the date of issuing an account in compliance with General Conditions for Rendering Services by RS, unless otherwise provided in the contract between RS and the shipowner.

- **4.3.2** In case of unsettling issued accounts within 30 days from the date of their issue, a record shall be made in the Classification Section "Additional Information to the Shipowner and Surveyor" of the List of Survey's Status in automatic mode stating that the shipowner has an overdue payment against the RS within the previous 18 months.
- **4.3.3** The RS Branch Office the financial obligations by the shipowner hereto have not been met, shall notify the shipowner upon expiry of 75 days from the date of issuing an account on upcoming class suspension in case of unsettling the account within remaining 15 days. The shipowner shall be informed that in case of survey of his other ships, RS reserves the right to postpone issuance, confirmation or extension of documents upon expiry of the respective survey prior to settling the debts to RS by the shipowner.
- **4.3.4** If the issued account for services rendered by RS is not settled by the shipowner within 90 days, the ship classification shall be automatically suspended and classification certificate shall become invalid. In this case the RS Branch Office to which the financial obligations by the shipowner hereto have not been met, shall promptly within one working day send the Notice on suspension of the ship's class due to the invoice payment default.

The RS Branch Office for in-service supervision shall send to RHO a Notice on changing the ship's class to class status code 27 "Class suspended (non-safety related reasons)" (Form  $11.\Pi.02/01$  or  $\Pi.\Pi.02/01$ ).

- **4.3.5** The Notice on class suspension shall advise the shipowner that RS stops rendering services on survey of other ships of this shipowner prior to settling the debts (refer to 4.9.2).
  - **4.3.6** Class suspension shall be documented in compliance with 4.10.

- **4.3.7** Information on accounts unsettled within more than 30 days shall be entered into the Classification Section "Memoranda for Shipowners and Surveyors" in the List of Survey's Status.
- **4.3.8** Upon receipt of the request for survey from the shipowner having a debt to RS regarding accounts unsettled within 30 to 90 days, the RS Branch Office shall inform the shipowner in writing on necessity to settle the debts prior to completion of the work under the current request.

In this case the documents shall be issued only upon settlement of the debts and upon receipt the written confirmation of the payment from the RS Branch Office that has made out the account or from the bank that has made the payment.

- **4.3.9** In case of information in the List of Survey's Status on overdue payment to RS within the past 18 months, services on current request shall be rendered on the terms of advance payment in the amount specified in para 3.5.1 "General Conditions for Rendering Services by RS".
- **4.3.10** If the shipowner intends to reinstate classification suspended by RS, the ship class shall be reinstated in compliance with reinstatement procedure specified in 4.6.

#### 4.4 DUAL CLASS SHIPS

### 4.4.1 General.

- **4.4.1.1** If one of the Societies suspends class of the ship which is classed by two Societies between which there is a written agreement regarding sharing of work, it shall advise the other Society of the reasons for such action and the full circumstances within five (5) working days.
- **4.4.1.2** The second society upon receipt of such advice shall also suspend the ship class unless it can otherwise document that such suspension is incorrect.
  - **4.4.1.3** When either Society decides to reinstate the class, it shall advise the other Society.
- **4.4.1.4** If one of the Societies decides to withdraw the class, it shall advise the other Society (refer to Chapter 6.7, Part II "Carrying Out Classification Surveys of Ships" of the Guidelines).
- **4.4.1.5** In the case of withdrawal of a class by one or two Societies the dual class agreement shall automatically invalidated and the ship shall be withdrawn from dual class classification. After reassignment of a class of one of the Societies, the ship shall be imposed into dual class classification under the shipowner's written request in compliance with regulations of Section 6, Part II "Carrying Out Classification Surveys of Ships".

## 4.4.2 Suspension or withdrawal of class.

- **4.4.2.1** If one of the RS Branch Offices or RHO receives a notice from ACS on suspension or withdrawal of class of dual class ship, the notice shall be promptly (within one working day) sent to the RS Branch Office for in-service supervision that it shall suspend or withdraw the RS class unless it can otherwise document that such suspension is incorrect.
- **4.4.2.2** If RS decides to suspend or withdraw class of dual class ship for technical reasons specified in 4.2.1 to 4.2.6 or 4.7, the RS Branch Office for in-service supervision shall promptly (within one working day after change of the class status) send the required information to RHO which in turn shall inform the second classification society on class suspension or withdrawal.

#### 4.4.3 Reinstatement of class.

- **4.4.3.1** If one of the RS Branch Offices or RHO receives a notice from ACS on reinstatement of class of dual class ship, the notice shall be promptly (within one working day) sent to the RS Branch Office for in-service supervision that it shall reinstate the RS class.
- **4.4.3.2** If RS decides to reinstate class of dual class ship, the RS Branch Office for in-service supervision shall promptly (within one working day after change the class status) send the required information to RHO which in turn shall inform the second classification society on class reinstatement.
  - **4.4.4** Class status transfer shall be documented in compliance with 4.10.
  - 4.4.5 All copies of correspondence on transfer of class status of dual class ship shall be sent to RHO.

### 4.5 WITHDRAWAL OF CLASS

- **4.5.1** Irrespective of reason of suspension (in cases specified in 4.2.1 to 4.2.6, 4.3, 4.7), the ship class may not be suspended for more than six months except for the cases specified in 4.5.6.
- **4.5.2** Ship class shall be withdrawn withinin six months after suspension. It shall not be taken in account the period of temporary cancellation of suspension of the class agreed by RHO (e.g. in accordance with 4.2.8.7, 4.7.12). The ship class status in the specified cases shall be transferred to code 32 "Class withdrawn (6 months expired after class suspension) to code 34 "Class withdrawn (non-safety related reasons)" or to other codes determined in Thesaurus No. 30 depending on the case.
- **4.5.3** The ship class may be withdrawn prior to expiry of 6 months after suspension by the TC separate decision, on the basis of the shipowner's written statement as well as in case of the shipowner's reluctance to withdraw the ship from special surveillance regime (SSR) in compliance with 4.8, Part II "Survey Schedule and Scope" of the Rules.
- **4.5.4** If during ship presence under SSR due to reasons non-depending on RS, periodical survey (special, intermediate, annual), bottom survey or overall survey of shafting is not completed timely, the ship class shall be withdrawn automatically. In this case the ship class status shall be transferred to code 33 "Class withdrawn (non-compliancewith requirements of the RS Rules)" from the date of overdue survey.
- **4.5.5** If during ship presence under SSR due to reasons non-depending on RS, ship classification conditions specified in 4.2.5, 4.2.6, 4.3 and 4.7 are violated and their non-compliance may lead to class suspension, the issue of ship class withdrawal shall be reviewed by TC.

In this case the ship class shall be suspended in compliance with the provisions of this Section and remain suspended prior to review by TC after which: the class shall remain suspended or shall be withdrawn. If TC decides to withdraw the ship class, its status shall be transferred to code 33 "Class withdrawn (non-compliance with requirements of the RS Rules", code 34 "Class withdrawn (causes non-safety related reasons)" or code 43 "Class withdrawn (casuality)" depending on the case and date of the TC decision.

- **4.5.6** Irrespective of provisions in 4.5.1, the ship class may be not withdrawn after the six-month period as prescribed in 4.5.2 and may remain suspended in the following cases:
- .1 if the ship has the class suspended due to casuality and transferred to code 21 "Class suspended (casuality)" and is waiting for the Shipowner's orders. In this case the conditions and the duration of status code 21 for the class shall be determined by RHO;
- .2 if the ship is submitted for class reinstatement with class status transferring to code 28 "Class suspended (ship is under survey for class reinstatement)" (refer to 4.1.6.3);
- .3 if class status code 27 "Class suspended (non-safety related reasons)" the class status shall be changed by another class status code of suspended class (refer to 4.1.4.4).
- .4 if the ship with suspended class is laid-up in accordance with 4.10 of Part II "Survey Schedule and Scope" of the Rules;
- .5 for the period of max. 12 months, if the ship is in conservation in accordance with 4.11 of Part II "Survey Schedule and Scope" of the Rules.
  - **4.5.7** Class withdrawal shall be documented in compliance with 4.10.
- **4.5.8** If the shipowner intends to reinstate classification suspended by RS, the ship class shall be reassigned (refer 4.8).
- **4.5.9** RS shall not carry out any types of technical supervision including review of technical documentation on the ship with a withdrawn class prior to taking a decision on expediency of classification reinstatement on the basis of class reassignment procedure (refer to 4.8).

### 4.6 REINSTATEMENT OF CLASS

- **4.6.1** An opportunity of the class reinstatement shall be reviewed by the Register upon the shipowner's written request. For this purpose, the Shipowner shall apply to the RS Branch Office which activity area is scheduled for the survey to be conducted for class reinstatement.
  - **4.6.2** When receiving the shipowner's request, the RS Branch Office specified in 4.6.1, shall:
- .1 analyze all information available on the ship on expediency of the RS class reinstatement to the ship considering its age, financial history of the shipowner, ability and wish of the shipowner to maintain the ship as per applicable requirements of the RS rules and International conventions;
- .2 analyze the List of Survey's Status in order to determine the scope of survey and class maybe reinstated based on satisfactory results;
  - .3 ensure that the shipowner has no debts to RS;
  - .4 carry out the ship survey.
- **4.6.3** Review of issues on class reinstatement to ships registered in the Register (RHO and the RS Branch Offices) is within competence of the RS Branch Office regardless of the class suspension conditions, which activity area is scheduled for the survey to be conducted for class reinstatement.
- **4.6.4** In case of class suspension for financial reasons, the RS Branch Office the shipowner has met financial obligations (has settled accounts for services rendered by RS) hereto shall within one working day inform the RS Branch Office for in-service supervision on settling accounts/debts).
- **4.6.5** When determining the scope of survey for class reinstatement, the following guidelines shall be used:
- .1 if the ship class is suspended due to undue term of ship submission for special survey (refer to Para 4.2.1), the ship class may be reinstated in case of satisfactory results of special survey where failure to submit was the reason of class suspension not considering age of the ship on the date of actual submission;
- .2 if the ship class is suspended due to the undue term of ship submission for periodical survey (refer to 4.2.2 or 4.2.3), the ship class may be reinstated in case of satisfactory results of the respective survey where failure to submit was the reason of class suspension;
- .3 if the ship class is suspended because of the undue term of ship submission for bottom survey (refer to 4.2.4), the ship class may be reinstated in case of satisfactory results of the respective bottom survey or overall survey of shafting depending on the cause of class suspension;
- .4 if the ship class is suspended because of the undue term of ship submission for survey of items of technical supervision according to the Survey list attached thereto (refer to 4.2.5), the ship class may be reinstated in case of satisfactory results of surveys of these items of technical supervision;
- .5 if the ship class is suspended because of the undue terms of requirement/recommendations/conditions of class (refer to 4.2.6), the ship class may be reinstated in case of satisfactory results of meeting the requirement;
- .6 if the ship class is suspended because of the undue term of settling accounts (refer to 4.3), the ship class may be reinstated in case of settling the debts;
- .7 in all cases if at the moment of reviewing the issue of class reinstatement the term of carrying our any other survey (which has not been the reason of class suspension) or settling the debts is undue, then carrying out such survey or settling the debts shall also be a condition for the RS class reinstatement. The exception shall include the case specified in 4.1.4.4;
  - .8 the ship survey for class reinstatement shall be carried out on terms of 100 % advance payment;
- .9 the above-mentioned requirements apply to the class reinstatement of the laid-up ship if the class has been suspended in accordance with 4.10.2.6 of Part II "Survey Schedule and Scope" of the Rules. The class of the laid-up ship shall be reinstated provided that the overdue periodical survey, bottom survey are carried-out (refer to 4.10.2.16 of Part II "Survey Schedule and Scope" of the Rules). At reinstatement of ship's class to continue to be in lay-up, the Statement of Laid-up Ship (Form 3.1.13) shall be reissued with validity until the next date of the periodical survey appointed in accordance with 4.10.2.16 of Part II " Survey Schedule and Scope" of the Rules, following the schedule counted from the date when the ship has been laid-up.

**4.6.6** The head of the RS Branch Office carrying out the ship survey shall be responsible for complete and proper meeting of the set conditions for class reinstatement.

The head of the RS Branch Office for in-service supervision shall monitor meeting the conditions for class reinstatement.

- **4.6.7** In case of the reinstatement of a class (except for the cases of suspension of class in compliance with 4.3 or 7.6.5) the set of invalid documents shall be renewed (refer to 4.9.7). Thus, documents with no terms of validity (for example, Forms 6.7.3, 6.7.4, Tonnage Certificates of Group 1.2, Records of the Equipment of Group 4, the RS Anti-Fouling systems Certificates, the RS Energy Efficiency Certificates) may not be renewed, if there have been no essential changes to the ship, demanding renewal of the above documents. Besides, there is no necessity to renew the RS documents (Forms 4.1.4, 4.1.8, 5.1.2 5.1.8), if the term of prescribed tests is not due. Either there is no necessity to renew the Register of Ship's Lifting Appliances and Cargo Handling Gear (Form 5.1.1), if the term of validity of it is not expired. Surveys carried out in compliance with 4.6.5.1, 4.6.5.2 or 4.6.5.3 for reinstatement of a class, shall be credited as the surveys for confirmation/renewal of a class.
- **4.6.8** When reinstating the class suspended due to debts (refer to 4.3), duration of the previous valid certificates (prior to the class suspension) shall be reinstated without their reissuance and the ship attendance during the class suspension only if:
  - .1 the terms of prescribed surveys have not been undue;
  - .2 no changes in structure, equipment, outfit and appliances of the ship have been made;
  - .3 no repair, upgrade or alteration of the ship has been made;
  - .4 no accidents or other cases influencing ship safety have occurred.

The shipowner shall record absence of cases specified in 4.6.8.1 to 4.6.8.4 in writing (refer to 4.6.1). If during class suspension, terms of any prescribed surveys are undue, guidelines of 4.6.7 shall be followed.

**4.6.9** If during class suspension the shipowner has made any changes in structure, equipment, outfit and appliances of the ship not agreed with the Register; repair, upgrade, alteration of the ship or its components without technical documentation approval or technical supervision of RS is made, then such shall be considered while specifying the class reinstatement conditions.

All detected changes unauthorized by RS shall be eliminated or technically justified with submission of technical documentation, certificates, carrying out analyses, tests, etc. subject to further consideration by RS until the class is reinstated.

- **4.6.10** The ship class after reinstatement shall be transferred to status code 51 "Class valid (reinstated to lift suspension)".
  - **4.6.11** Class reinstatement shall be documented in compliance with 4.10.
- **4.6.12** Specification of the possibility and class reinstatement of the ship under the SSR procedure, shall be carried out by RHO.

# 4.7 OTHER CASES OF CLASS SUSPENSION AND WITHDRAWAL PROCEDURE APPLICATION

- **4.7.1** Except for the reasons of class suspension specified in 4.2.1 to 4.2.6 and 4.3, classification certificate shall become invalid and class shall be automatically suspended in the following cases (refer to 2.1.6, Part II "Classification" of the Rules for Construction):
  - .1 after an accident;
  - .2 when making changes in structure, equipment, outfit and appliances of the ship not agreed with RS;
- .3 during repairs, modernization/conversion of the ship or its components without approval and technical supervision of RS;
  - .4 when operating a ship with draught exceeding the one regulated by RS for specific conditions;
  - .5 when operating the ship in conditions not complying with the assigned class or limitations set by RS;
  - .6 when suspending the ship survey carried out by RS on initiative or by fault of the shipowner;
  - .7 in case of ship seizure by pirates.

- **4.7.2** Information received by any RS Branch Office on cases leading to class suspension (refer to 4.7.1) shall be promptly sent to the RS Branch Office for in-service supervision as well as to RHO.
- **4.7.3** The RS Branch Office for in-service supervision shall request the shipowner on comments on the detected cases of violated conditions of class, analyze the situation and develop reasonable recommendations on application of class suspension procedure to the ship.
- **4.7.4** The results of analysis, recommendations and respective investigation materials shall be sent to RHO for final decision on class suspension.
- **4.7.5** Class suspension procedure during an accident (refer to 4.7.1.1) is specified in 7.4.3 and 7.4.4 of the Part.
- **4.7.6** In cases specified in 4.7.1.2, 4.7.1.3, 4.7.1.6 and 4.7.1.7 the ship class shall be automatically suspended. In these cases the class status shall be transferred to code 26 "Class suspended (non-compliance with recommendations and/or conditions of class)" from the date of such a case.
- **4.7.7** In case of receiving objective information on ship operation in conditions not complying with assigned freeboard (refer to 4.7.1.4) or assigned class/set limitations (refer to 4.7.1.5), RHO shall review the issue of class suspension and necessity of ship submission for occasional survey at ship location or at the first port of call as well as determine scope of such a survey, if required.

If RHO decides to suspend the ship class or the ship shall not be timely submitted for occasional survey, the class shall be transferred to status code 26 "Class suspended (non-compliance with recommendations and/or conditions of class)" from the date of violating conditions of class specified in 4.7.1.4 and 4.7.1.5.

- **4.7.8** The suspended class may be reinstated in case of complying with 4.6.
- **4.7.9** The class shall be withdrawn in compliance with 4.5 (refer to 2.1.8, Part I "Classification" of the Rules for Construction).
- **4.7.10** The ship with a suspended class may reinstate classification in case of the RS class reassignment in compliance with 4.8.
  - **4.7.11** Class status transfer shall be documented in compliance with 4.10.
- **4.7.12** When a ship with an overdue survey (i.e. with the ship's class suspension) is intended for a demolition and recycling voyage, the ship's class suspension may be temporarily cancelled (for the period of the voyage), and the RS Branch Office specified in 4.6.1 may consider a direct ballast voyage of the ship to the scrapping and recycling place provided the following:
  - .1 agreement upon the voyage with the Flag State MA (under the RHO competence);
- .2 satisfactory condition after occasional survey in the scope of the overdue surveys, taking into account the period of the class suspension.

At the end of the class temporary cancellation period, the ship class is automatically suspended from the date of suspension of the class preceding its temporary cancellation.

## 4.8 REASSIGNMENT OF CLASS

- **4.8.1** Ship classification with the RS class withdrawn in compliance with 4.5 or 4.7, i.e. technical supervision of RS has been stopped due to reasons specified in 2.1.9 Part I "Classification" of the Rules for Construction, may be reinstated in case of class reassignment as per provisions of this chapter.
- **4.8.2** The RS class shall be reassigned on the basis of the shipowner's written statement, in case of satisfactory results of initial survey carried out in the scope specified in 4.8.10 and 4.8.11.
  - **4.8.3** Arranging the review of issue of class reassignment is within competence of RHO.

The RS Branch Office or RHO having received application on ship class reassignment shall quickly send this application to RHO.

**4.8.4** In case of class withdrawal for financial reasons, the RS Branch Office the shipowner has met financial obligations (settled accounts for ship survey) hereto shall within one working day inform the RS Branch Office for in-service supervision on settling accounts/debts and necessity to start class

reassignment at the option of the shipowner. The shipowner's application with confirmation of settling the debts shall be sent to RHO.

**4.8.5** Procedure for withdrawn class reassignment is summarized in Table 4.8 depending on age of the ship and duration of its being without the RS class from the moment of its withdrawal.

Table 4.8 Conditions of the RS class reassignment on technical grounds depending on the age of the ship and its being off the RS class from the date of its withdrawal

The ship reinstatement to the RS class	Conditions of the RS class reinstatement	The ship aged less than 15 years, being off the RS class for:		The ship aged 15 years and above, being off the RS class for:		
		less than 3 years	3 years and above	less than 3 years	3 years and above	
		Class transfer procedure in compliance with Section 5, Part II "Carrying Out Classification Surveys of Ships" of the Guidelines				
From ACS — IACS member  Without class or from ACS — not IACS member class	Submission of drawings Ship expertise Advance payment Scope of survey	No No 100 %  Survey where failure to submit was the reason of class suspension and withdrawal (refer to 4.8.10.1, 4.8.10.6)	Yes (refer to 4.8.12) 100 % Special survey of all	Advance payment	No No 100 % Special survey of all parts and in full scope (refer to 4.8.10.5, 4.8.10.6)	

- **4.8.6** The ships reinstated to the RS class from ACS IACS member shall be transferred to class in compliance Section 5.
- **4.8.7** RHO shall review expediency of class reassignment for ships aged 15 years and over and flying the flag other than RF flag.

RHO shall review expediency of class reassignment for ships aged 15 years and over and flying RF flag.

RHO shall review expediency of class reassignment for ships with age under 15 years and irrespective of the flag.

RHO shall analyze all information available on the ship and submit recommendations on expediency of the RS class reinstatement.

**4.8.8** RHO shall inform the shipowner and the RS Branch Office for in-service supervision on decision made by RHO on results of reviewing expediency of class reassignment.

Satisfactory decision of RHO on expediency of the RS class reassignment shall be valid during three months. If within this period due to reasons non-depending on RS, ship submission is not started and/or technical documentation in compliance with the requirements of the RS Rules is not submitted, the decision becomes invalid. Reconsideration of the RS class reassignment shall be carried out again on common basis.

- **4.8.9** In case of satisfactory decision on class reassignment RHO shall advise the shipowner, the RS Branch Office for in-service supervision as well as the RS Branch Office at the ship's location on conditions of class reassignment and scope of ship initial survey.
- **4.8.10** Initial survey of the ship for the RS class reassignment which was withdrawn due to technical grounds shall be carried out on terms of 100 % advance payment in the following scope:

.1 ships aged under 15 years which have been without the RS class less than 3 years — in scope of survey where failure to submit was the reason of class suspension and withdrawal.

If at the moment of reviewing the class reassignment the term of carrying out any other survey (which has not been the reason for class suspension and withdrawal) is overdue, then carrying out such a survey shall also be the reason for the RS class reassignment;

- .2 ships aged under 15 years which have been without the RS class for 3 years and over in scope of overall special survey of all parts including bottom survey in dock and overall survey of shafting;
- .3 ships aged 15 years and over which have been without the RS class under 1 year in scope of survey where failure to submit has been the reason for class suspension and withdrawal.

If at the moment of reviewing the class reassignment the term of carrying out any other survey (which has not been the reason for class suspension and withdrawal) has been overdue, then carrying out such a survey shall also be the reason of the RS class reassignment;

- .4 ships aged 15 years and over which have been without the RS class for 1 to 3 years in scope of next intermediate survey after class withdrawal or special survey of all parts and in full scope including bottom survey in dock and overall survey of shafting;
- .5 ships aged 15 years and over which have been without the RS class 3 years and over in scope of overall special survey of all parts including bottom survey in dock and overall survey of shafting;
- .6 In any of the above cases if at the moment of reviewing the class reassignment, term of settling the issued accounts for services rendered by RS is overdue, settling the debts shall be an indispensable condition of the RS class reassignment.
- **4.8.11** Initial survey of the ship for the RS class reassignment which has been withdrawn due to financial reasons shall be carried out only after all the debts are settled and 100 % advance payment in the following scope is made:
- .1 if at the moment of reviewing the class reassignment, terms of any prescribed surveys are overdue, the ship class shall be reassigned in case of satisfactory results of initial survey in scope of those surveys the terms of which are overdue;
- .2 if at the moment of reviewing the class reassignment terms of any prescribed surveys are overdue and the ship is in the periodical survey "window", the ship class shall be reassigned in case of satisfactory results of initial survey in scope of those surveys terms of which are overdue or in scope of periodical survey (if the ship is in the survey "window") depending on larger scope of survey;
- .3 if at the moment of reviewing the class reassignment the terms of any prescribed surveys are not overdue and the ship is in the periodical survey "window" the ship class shall be reassigned in case of satisfactory results of initial survey in scope of periodical one if the ship is in the survey "window";
- .4 if at the moment of reviewing the issue of class reassignment terms of any prescribed surveys are not overdue and the periodical survey "window" has not yet become due, the ship class shall be reassigned in case of satisfactory results of initial survey in scope of annual survey.
- **4.8.12** In the following cases the RS Surveyor shall carry out shall carry out assessment of the ship's compliance with the Rules for Construction together with initial survey:

if the ship is aged less than 15 years and being without the RS class for 3 years and above;

if the ship is aged 15 years and over and is irrespective of the ship being without the RS class.

Assessment of the ship's compliance with the Rules for Construction shall be carried out in order to confirm that no changes are made on the ship during its being without the RS class. All detected changes unauthorized by RS shall be eliminated or technically justified with submission of certificates, carrying out analyses, tests, etc.

The RS Surveyor shall record the results of the expertise and actions taken on its results (if they are required) in records of the ship survey in arbitrary form.

**4.8.13** The RS Surveyor shall be provided with drawings and documentation in scope specified in 5.2.3.10 on board the ship for the expertise and initial survey.

### 4.9 NOTIFICATION TO SHIPOWNERS AND FLAG STATE MARITIME ADMINISTRATIONS

- **4.9.1** The shipowner and Flag State MA shall be informed by RS on each case of suspension, withdrawal, reinstatement or reassignment of the RS class as well as application of force majeure by sending a respective written notification in compliance with the following.
- **4.9.2** The RS Branch Office for in-service supervision shall promptly but not later than the following working day after transfer of the class status advise the shipowner and the sea port administration, wherein the ship is registered, in writing on suspension or withdrawal of the RS class (specifying the reason) as well as on reinstatement or reassignment of the RS class.
- **4.9.3** The RS Branch Office for in-service supervision in Latvia, Lithuania, Estonia, Azerbaijan, Turkmenistan, Kazakhstan and Georgia shall promptly but not later than the following working day after transfer of the class status except for transfer of the ship class to code 15 "Class valid (force majeure)", advise territorial Flag State MA in writing on suspension or withdrawal of the RS class (specifying the reason) as well as on reinstatement or reassignment of the RS class of ships registered under flags of these states.
- **4.9.4** RHO shall promptly but not later than the following working day after transfer of the class status advise Flag State MA (except for the RF Flag State MA) in writing on suspension or withdrawal of the RS class (specifying the reason) as well as on reinstatement or reassignment of the RS class of ships not specified in 4.9.3.
- **4.9.5** RHO shall promptly within 24 h after transfer of the class status officially advise RF MA on suspension or withdrawal of the RS class (specifying the reason) as well as on reinstatement or reassignment of the RS class of the ships flying the RF flag. The RS Branch Offices shall inform RHO on transfer of the class status of the ships flying the RF flag in advance.

In those cases, when the requirements of the of the applicable documents cannot be fulfilled due to particular circumstances, as specified in para 2.2 of the Agreement between RS and RF MA (the Agreement), RHO shall inform the RF MA about it within 3 working days from the date of survey completion. The notification shall contain the IMO number, name of the ship, description of circumstances and a list of imposed conditions. The RS Branch Office which has issued the certificate(s) with condition (as applicable) to the ship or imposed the relevant conditions shall send the draft notification to RHO within 1 working day upon completion of the survey.

- **4.9.6** Flag State MA shall be notifyed on application of force majeure in the same manner as in 4.9.3 and 4.9.5. When notifying the shipowner and Flag State MA on application of force majeure, provisions of 4.2.7.8 shall also be considered.
- **4.9.7** For ships under Convention SOLAS-74, all notifications (refer to 4.9.1 to 4.9.6) shall comprise information that respective statutory certificates shall become invalid due to suspension or withdrawal of the RS class. Other documents issued to RS on behalf of the Flag State MA shall become invalid unless otherwise provided by the Flag State MA.
- **4.9.8** At the change of a flag the Register shall notify the relevant Flag State MA of the issued certificates indicating the documents, date of issuance and validity period or, when required by the agreement with the Flag State MA, send the copies of the certificates within 5 working days after receipt of electronic copies of documents from the RS Branch Office performed the survey, when term or way of notification are not otherwise stated in the agreement with the Flag State MA.
- **4.9.9** In compliance with the Agreement between RS and RF MA, RHO shall notify RF MA on the documents initially issued to a ship flying the RF flag according to Annex 2 to the Agreement on quarterly basis (sample notification is specified in Appendix 4.9.9). The RS Branch Office carrying out the ship survey with initially issued Classification Certificate and/or documents on behalf and upon authorization of the RF MA within 10 working days after completion of the survey shall send to RHO the notification and a total list of the certificates issued according to Annex 2 to the Agreement (refer to Appendix 4.9.9 "RF MA sample notification on the documents initially issued to 02/2018 company/ship"). The documents initially issued under ISM Code and ISPS Code are the Interim DOC, the Interim SMC and the Interim SSC.

APPENDIX 4.9.9

### SAMPLE OF RF MA NOTIFICATION ON DOCUMENTS INITIALLY ISSUED TO COMPANY / SHIP

"	<b>N</b>	
'''	Dear	•

based on the survey results of the m/v ......, IMO No. ...... in connection with the change of a flag the Russian Maritime Register of Shipping confirms that the ship meets the requirements of the RS rules and applicable requirements of the international conventions and codes.

The list of certificates issued for the ship is attached.

Appendix: List of certificates at ... sheets.

List of certificates issued for m/v ....., IMO No. ..... Date of issuing Validity 1 2 3 1 The full title of the certificate in compliance with the List of the electronic forms of documents"

Item No	Title of certificate <sup>1</sup>	Certificate No	Date of issuing	Validity
1				
2				
3				
4				
5				

<sup>&</sup>lt;sup>1</sup>Full title of the certificate in compliance with the List of the electronic forms of documents.

### 4.10 DOCUMENTATION OF CLASS STATUS TRANSFER

- **4.10.1** Provisions of this Chapter are applicable only to the class status transfer related to suspension, withdrawal, reinstatement or reassignment of the RS class.
- **4.10.2** Arrangement of operations on class status transfer due to suspension and withdrawal of class on technical grounds is within the competence and responsibility of the RS Branch Office for in-service supervision.

Arrangement of operations on class status transfer due to class suspension or withdrawal for financial reasons is within the competence and responsibility of the RS Branch Office for in-service supervision only in case information on class status transfer is received from the RS Branch Office having issued the invoice for services rendered when the non-settlement of that invoice became the reason for class suspension (refer to 4.3.4, 4.6.4).

**4.10.3** Arrangement of operations on class status transfer due to class reinstatement or reassignment except for the case of class reinstatement after suspension for financial reasons (refer to 4.3) is within the competence and responsibility of the RS Branch Office having surveyed the ship for the purpose of its class reinstatement or reassignment.

Arrangement of operations on class status transfer due to reinstatement of class suspended for financial reasons is within the competence and responsibility of the RS Branch Office for in-service supervision only in case information on class status transfer is received from the RS Branch Office having issued the invoice for services rendered where the non-settlement of that invoice became the reason for class suspension (refer to 4.3.4, 4.6.4).

**4.10.4** The ship class status shall be transferred by issuing and sending "Notice on data amendments of ships in service" (form 11.Π.02/01 or 11.Π.02/01<sup>3</sup>), to RHO (Regulations for Registration of Ships and Offshore Installations by RS) using class status codes as per Thesaurus No. 30 of the Code book.

Copies of Notices shall be also sent to the RS Branch Office for in-service supervision during class reinstatement and reassignment.

**4.10.5** Upon receipt of Notice from the RS Branch Office (refer to 4.10.4) RHO shall enter the respective transfers related to the ship class in the database "Ships". Reliability of information entered in the database "Ships" shall be checked and monitored by the RS Branch Offices for in-service supervision.

## 5 PROCEDURE FOR ACCEPTANCE OF SHIPS IN SERVICE INTO THE RS CLASS

This Section has been developed to detail the requirements of 1.2, Part II "Survey Schedule and Scope" of the Rules and has included the provisions of the IACS Procedural Requirements and Regulation (EC) No. 391/2009 which are mandatory in transferring a ship into the RS Class.

#### 5.1 DEFINITIONS AND GENERAL PROVISIONS

### 5.1.1 Definitions.

In addition to the definitions given in Section 2, Part I "General Provisions" of the Guidelines the following definitions have been adopted.

A g e of ship means a period of time between the date of ship delivery and date of registration of a shipowner's application in "Thesis" System for the ship's accepting under the RS Class.

Interim Classification Certificate is the certificate issued to a ship immediately upon completion of its survey so as it could operate until the Ship History Report is prepared at RHO and copies of the plans listed in 5.2.3.10 are submitted.

ACS means another Classification Society.

Flag State MA means a Maritime Administration of a ship's Flag State.

R F M A means a Maritime Administration of the Russian Federation represented by the Department of State Policy for Maritime and River Transport of the Ministry of Transport of the Russian Federation.

S m a 11 c r a f t means a ship flying the RF flag, not longer than 20 m with a total quantity of persons on board not exceeding 12.

Outstanding means still to be dealt with in the specified time.

Risk assessment Procedure".

First Classification Certificate means either Interim Classification Certificate or Full Term Classification Certificate or another Certificate serving the same purpose.

Periodical surveys for class maintenance are special, annual and intermediate surveys carried out to confirm/renew the class at due dates in accordance with the set anniversary date.

At ship delivery means that the new construction survey process is completed, the first Classification Certificate is delivered and the ship has not departed from the yard.

Acceptance of a ship in service into the RS Class means transfer of class or assignment of class to a ship in service.

Gaining Society means a Classification Society which accepts a ship for its classification only after all overdue surveys, overdue recommendations/ overdue conditions of class previously is-sued against the ship have been completed by or as specified by the losing Society.

Assignment of the RS Class to a ship in service means definition of the process given in 2.1 of Part I "General Provisions" of the Rules.

O v e r d u e means overdue on the date the losing Society receives the request by the gaining So-ciety for its current classification survey status.

Recommendations and conditions of class are different terms used by Societies for the same thing, i.e. requirements to the effect that specific measures, repairs, surveys etc. shall be carried out within a specific time limit in order to retain class.

Transfer of class is definition of the process given in 2.1, Part I "General Provisions" of the Rules.

In land waterway ship is a ship intended solely or mainly for navigation on inland waterways.

Losing Society means the Classification Society from which class is being transferred. If the ship is classed by more than one Society, the losing Society means all IACS Societies from which class is being transferred.

Technical Committee of Register (TC) is a Technical Committee of RS acting in compliance with the Regulations for Technical Committee.

## 5.1.2 General.

- **5.1.2.1** The provisions of the present Section shall cover the process of the initial survey of a ship in service in order to be accepted into the RS Class with the issuance of the Classification Certificate.
  - **5.1.2.2** The procedure for acceptance of a ship into the RS class shall consist of two stages:
  - .1 the first stage includes:

review of a shipowner's written application (refer to 5.1.3);

assessment of the ship's compliance with the Rules for Construction (refer to 5.1.5);

review of nonconformities to the RS Rules for the Construction detected in the process of the ship's technical appraisal (refer to 5.1.5);

- .2 the second stage includes organization and performance of initial survey of a ship within the scope as prescribed (refer to 5.1.6).
- **5.1.2.3** Each of the stages of the procedure for acceptance of a ship into the RS Class shall be carried out with conclusion of an appropriate agreement prescribing prepayment for the RS services in a certain amount.
- **5.1.2.4** All decisions on application of the requirements in 5.1.3 to 5.1.9 for ships of less than 100 gross tonnage not classed by ACS IACS member shall be taken by the RS Branch Office for in-service supervision and the RS Branch Office performing the survey.

# 5.1.3 Shipowner's application review.

**5.1.3.1** A written application on acceptance of a ship into the RS Class (in arbitrary form) shall be sent by the Shipowner to RHO. The application shall contain the following:

Particulars of ship:

name;

IMO Number;

availability of valid ACS Class - IACS member;

the existing flag/new flag (in case of the flag change at the acceptance of the

ship into the RS class):

year and place of the ship construction;

gross tonnage (refer to International Convention on Tonnage Measurement of Ships, 1969) (ITC-69)); overall length;

specification of the purpose and intended service area (where necessary);

documented confirmation of the ownership right/controlling of the ship (where

available) or the scheduled terms of its issuing;

company's information:

description;

address;

phone, fax, e-mail;

position, name and surname of the head and contact person of the company.

- **5.1.3.2** The application review, consideration of the possibility to start the procedure for acceptance of a ship into the RS class shall be carried out by RHO.
- **5.1.3.3** The application review includes consideration of all the accessible and trustworthy information on the ship such specified below but not limited:

type, age, Data Sheet;

availability of valid ACS Class - IACS member;

history of

classification and nationality of a ship;

the statistics of a ship's detentions by port/flag authorities within the last 36 months;

information on the Shipowner;

the results of ship's compliance with the Rules for Construction (refer to 5.1.5) except for the ships with valid ACS Class - IACS member;

the statement of identification and examination of the ship during its registration under the state flag of the Russian Federation (refer to 4.2.2.2, Part III "Survey of ships in compliance with International conventions, codes, resolutions and Rules for the equipment of Sea-Going ships").

**5.1.4** The decision on the possibility to start the procedure for acceptance of the ship into the RS class shall be admitted by the Technical Committee based on the review results (refer to 5.1.3.3).

In case of the satisfactory decision made by the Technical Committee, RHO shall notify the shipowner of the information on the decision made, as well as of the conditions and the procedure for assignment of the RS class in compliance with this Section within 3 working daysio

- **5.1.4.1** Expediency of acceptance to the RS class of the ships classed by ACS-IACS member and aged 15 years and over, as well as the ships not classed by ACS IACS member regardless of the age shall be assessed by TC on the basis and information and opinion of RHO on the results of the review carried out.
- **5.1.4.2** Expediency of acceptance of the ships with ACS Class IACS member aged under 15 years to the RS Class shall be assessed by the RHO Marine Directorate on the basis of information and opinion of RHO on the results of the review carried out.
  - 5.1.5 Assessment of the ship's compliance with the Rules for Construction.
- **5.1.5.1** The ships regardless of age except for the ships with the valid ACS Class IACS Member subject to the assessment carried out by the Register aimed at determining the degree of a ship's compliance with the RS rules..
- **5.1.5.2** The assessment of the ship compliance with the Rules for Construction as well as other RS rules (also refer to 4.1, Part III "Survey of ships in compliance with International conventions, codes, resolutions and Rules for the equipment of sea-going ships"), shall be performed with no obligations on the part of the Register on subsequent acceptance of a ship into the RS class.
- **5.1.5.3** The assessment of the ship shall be performed upon authorization by RHO in compliance with the attached check-lists or in arbitrary form as defined in the Agreement.
- **5.1.5.4** The RS exclusive Surveyors of relevant specialties and with the adequate qualification to perform initial surveys of ships in service shall be invited to carry out the assessment in the number enough for its complete and qualitative performance with regard to ship's characteristics affecting the complexity of work performance.
- **5.1.5.5** To provide assessment of ship's compliance with the Rules for Construction on board the shipowner shall submit the plans showing the main scantlings and general arrangement of a ship to the RS surveyors. The RS surveyor has the right to demand additional plans, diagrams and other ship's documentation which shall allow him to conduct a qualitative technical appraisal of the ship.
- **5.1.5.6** While conducting the assessment of the ship the scope of conformity of its hull, ship's equipment, arrangements and outfit of the machinery installation and refrigerating plant as well as of electrical equipment to the applicable requirements of the Rules for Construction and other RS rules shall be determined in respect of the regulated features and characteristics, structures and mandatory list of items, their location and installation, subject to availability of the modifications in the hull structures or equipment on the basis of plans submitted for the assessment.
- **5.1.5.7** As per the results of the assessment the RS surveyors shall issue the Report on Ship's Technical Appraisal (refer to the Appendix).

Nonconformities with the RS Rules detected while conducting the the assessment shall be subject to review in compliance with 5.1.6. A list of nonconformities if any issued in compliance with 5.1.6.4 shall be an integral part of the Report.

In case of any modifications to ship structure or list of ship items as compared to the plans submitted for the assessment, the annexes to the Report on Assessment of Ship's Compliance with the Rules for Construction shall be issued in free format with indication of the modifications.

- **5.1.5.8** The Report on Assessment of Ship's Compliance with the Rules for Construction (refer to 5.1.5.7) shall be delivered to the Shipowner.
- **5.1.5.9** In addition for submersible, semi-submersible self-elevating Mobile Offshore Drilling Units (MODU) and Fixed Offshore Platformsw (FOP) and other units (pontoons, platforms, islands, etc.) resting on a seabed and which may be transferred and installed on a new place, the owner of MODU and MSP

shall be notified in written about necessity of elaboration and submission to RHO for review the following documentation before beginning of the Initial survey according to 5.1.7:

verification of compliance of hull structures of MODU/FOP with the requirements of Part II "Hull" of the Rules for the Classification, construction and Equipment of MODU and FOP.

# 5.1.6 Review of nonconformities detected during assessment of the ship's compliance with the RS Rules for Construction.

- **5.1.6.1** All nonconformities with the RS Rules identified in the process of the assessment shall be subject to the review in terms of their applicability to a specific ship depending on its data, including the date of construction.
  - **5.1.6.2** The review shall be conducted by the RS surveyors carrying out the assessment.
- **5.1.6.3** The review of nonconformities shall constitute the assessment of applicability of the detected nonconformities with the requirements of the Rules for Construction valid on the date of the ship's construction unless in the following issues of the Rules for Construction specified otherwise.
- **5.1.6.4** As per the review results, the List of the ship's nonconformities to be eliminated shall be issued for it to be brought to conformity with the RS Rules. The List of the ship's nonconformities shall be attached to the Summary Report on Assessment of Ship's Compliance with the Rules for Construction issued in compliance with 5.1.5.7.
- **5.1.6.5** The Summary Report on Assessment of Ship's Compliance with the Rules for Construction with the attached List of nonconformities and check-lists shall be forwarded to RHO for review and control verification checks.

List of nonconformities finally agreed by RHO shall be forwarded to the shipowner informing that to eliminate the nonconformities specified is a mandatory requirement for acceptance of a ship into the RS Class.

- **5.1.6.6** Provided an intention of transferring the ship to the RS class appears, the shipowner shall confirm in writing his willingness to eliminate all the nonconformities detected specified in the List of nonconformities as well as develop actions to eliminate them.
- **5.1.6.7** Actions for elimination of nonconformities shall be subject to review by the RHO specialized departments or the RS Branch Office on an individual authorization by RHO in the scope of technical documentation on bringing the ship in compliance with the requirements of the applicable Rules for the Construction (refer to 5.3.3.2).

# 5.1.7 Initial survey of a ship.

**5.1.7.1** The ship's initial survey shall be performed only upon authorization of RHO:

for the ships classed by ACS — IACS member (refer to 5.2);

for the ships not classed by ACS — IACS member (refer to 5.3).

# 5.2 TRANSFER OF CLASS FOR THE SHIP CLASSED BY ACS — IACS MEMBER

#### 5.2.1 General.

Provisions of this Section are applicable while interacting with all the ACS — IACS members.

The Register's obligations, as of a gaining or losing Society, remain valid in case of ship's class suspension and within six months after class withdrawal, irrespective of the ship's current Status.

- **5.2.1.1** These requirements shall apply to:
- .1 during ship's transfer of class from one Society (losing Society) to another Society (gaining Society);
- .2 to ships any type over 100 gross tonnage: self-propelled or non-self-propelled, of restricted area of navigation or unrestricted area of navigation, except for inland waterway ships;
- .3 when a class of one more Society is added to a the ship classed with one Society; regarding the dual classed ships, when the first class is withdrawn and the second one is simultaneously assigned (refer also to Section 6);

- .4 application of the requirements of the Chapter to the ships of 100 and below gross tonnage, except for small craft shall be determined by RHO in each particular case.
  - **5.2.1.2** Transfer of class of the ship shall be performed only under the TC decision (refer to 5.1.4.).
- **5.2.1.3** The survey performance shall not start before receipt of official authorization for transfer of class from RHO.
  - **5.2.1.4** The monitoring of the procedure for ship's class transfer shall be carried out by RHO.
- **5.2.1.5** The class notation shall be determined by RHO while preparing the information for the shipowner on the conditions and procedure for assigning the RS class according to 5.2.2.1.

The RS character of classification shall be assigned to the ships and floating facilities built under the rules of a classification society - IACS member and surveyed by this classification society during construction in compliance with 2.2.2.2, Part I "Classification" of the Rules for Construction.

The distinguishing marks of the RS class notation shall be assigned in accordance with the similar distinguishing marks of the class notations of the classification societies -IACS members in compliance with Sections 2 - 4 of the Reference Book "International Association of Classification Societies. Ship Class Notations.

## 5.2.2 Obligations of the Register being the gaining Society.

- **5.2.2.1** At receipt of the shipowner's request for the ship's class transfer for the RS Class, RHO shall immediately notify the shipowner that:
- .1 the relevant surveys specified in 5.2.3.3 and 5.2.3.4, shall be completed before the RS class is assigned to the ship;
- .2 a Classification Certificate for ships aged under 15 years may be issued only after the gaining Society completes in full all the overdue surveys and all the overdue recommendations/conditions of class issued against the ship by the losing Society;
- .3 a Classification Certificate for ships aged 15 years and over may be issued only after the losing Society completes in full all the overdue surveys and all the overdue recommendations/conditions of class issued against the ship and reported to the Shipowner by the losing Society;
- .4 all the outstanding recommendations/conditions of class issued by the losing Society shall be carried out by their due dates;
- .5 the provisions in 5.2.2.1.1, 5.2.2.1.2 and 5.2.2.1.3 apply to any additional recommendations/conditions of class issued against the ship resulting from the surveys carried out by the time next to the date of applying for class transfer and thus not included in the ship's initial Survey Status previously submitted to the Register by the losing Society.

If such additional recommendations/conditions of class are submitted after issuing a Classification Certificate by the Register and are therewith overdue, these shall be dealt with at the first port of call wherein surveys may be carried out by the relevant Classification Society depending on the ship age;

.6 the issuance of a Full Term Classification Certificate is conditioned upon submitting copies of the plans listed in 5.2.3.10 to the Register for review and by preparing the ship's data by RHO.

If the Shipowner is unable to submit all of the required plans, it shall be recommended to make a request directly to the losing Society on provision the Register with the lacking plans on its de-mand. In doing so, the Shipowner shall be notified that the invoice issued by the losing Society to the RHO for any submitted drawings, will be presented for payment to the Shipowner. In this case, the Shipowner shall forward a guarantee of payment to RHO for the lacking plans provided.

- **5.2.2.2** Prior to issuing an Interim Classification Certificate, the Register shall obtain:
- .1 a written application from Shipowner for transfer of class issued in an arbitrary form (refer to 5.1), an authorization to RS for request of the current classification Survey's Status in English (Form 7.1.24) and copies of documents of the losing Society. If the shipowner applies to the RS Branch Office, the request shall be sent to RHO within a working day since its receipt; If the request contains the name of a new shipowner, the document confirming his full property right to ship (e.g. a bill of sale) shall be provided;
- .2 the current classification Survey's Status from the losing Society's Head Office or from one of its designated control or management centers.

**5.2.2.3** Within two working days from the receipt of the shipowner's written Authorization for Release of Ship's Survey Status and Information (Form 7.1.24), RHO shall advise the losing Society of the specified transfer of class using Form G of Annex 21 with Part A completed and with the shipowner's authorisation (Form 7.1.24) enclosed.

If the Classification Survey Status was not received from the losing Society within three working days since the day of the RHO Transfer of Class Department's request made, use may be made of the information on the losing Society's Survey Status provided by the shipowner, and after meeting the remaining applicable requirements of this Section, a Classification Certificate may be issued. In similar cases, a memorandum for the shipowner shall be enclosed with the Classification Certificate to the effect that the conditions in 5.2.2.1 are still effective.

RHO shall send a request for additional instructions to the Flag State MA concurrently together with an authorization for carrying out a survey to the RS Branch Office. The RHO authorization shall at least contain conditions of class transfer, scope of survey for the class in compliance with 5.2 or 5.3, as applicable, and other information on the RHO decision. When received, the additional instructions of the Flag State MA shall be promptly forwarded to the RS Branch Office.

- **5.2.2.4** The Register shall not issue an Interim Classification Certificate or other documents permitting the ship's operation in the following cases:
- .1 until all the overdue surveys and all the overdue recommendations/conditions of class previously issued against the ship, as stated by the losing Society for the shipowner, are carried out:
  - by the Register: for ships aged under 15 years;
  - by the losing Society: for ships aged 15 years and over;
- .2 until all the relevant surveys specified in 5.2.3.3 and 5.2.3.4 are carried out. If an opportunity of carrying out at the first port of call is unavailable, the Interim Classification Certificate may be issued provide the ship with an opportunity to proceed directly where the surveys required in 5.2.3.2 shall be completed. In such cases the surveys specified in 5.2.3.2 shall be carried out to the maximum possible extent at the first port of survey. In any case their extent shall not be inferior to the scope of an annual survey with regard to the ship's hull and to the scope of machinery surveys as required 5.2.3.4.
- .3 until the Flag State MA is presented with an opportunity to provide the Register within three working days with further instructions in compliance with the provisions of Article 10(5), Regulation (EC) No. 391/2009.
- **5.2.2.5** The assignment of a class notation to the ship shall be confirmed by RHO upon receipt of the RS Branch Office request for giving the distinctive number in compliance with the RS prescribed procedure.

Changing of the confirmed class notation shall be performed according to 3.2, Part II "Survey Schedule and Scope" of the Rules.

- **5.2.2.6** Unless the Vessel's Records are prepared by the Register by the time of survey completion, or the Shipowner has submitted the plans in compliance with 5.2.3.10, the Register may only issue an Interim Classification Certificate for the upper limit of the time period until the next classification (annual/intermediate or special, whichever comes first) survey of the ship, but not more than for a year. In this case, the following entry shall be made in Section "Memoranda" of the Summary Report on Ship's Transfer of Class (Form 6.3.50): "The Interim Classification Certificate has been issued for the time period until... due to (lack of the Vessel's Records) and/or (the incomplete set of the plans submitted)". This entry is made in the ship's List of Survey's Status (Form 6.3.51-1).
- **5.2.2.7** All the losing Society's requirements, recommendations and conditions of class listed in its List of Survey's Status shall be identified as follows:
- .1 fulfilment of the losing Society's requirements, recommendations and conditions of class<sup>1</sup> shall be confirmed by the Register individual Reports on Survey of the ship (Form 6.3.10), and also by the Summary Report on Ship's Transfer of Class (Form 6.3.50) with the mandatory identification of the requirements according to the ship's Survey's Status of the losing Society.

<sup>&</sup>lt;sup>1</sup> Hereinafter referred to as the requirements.

If postponing the term of meeting with the requirements of the losing Society in connection with the Shipowner's unability or due to a number of other good reasons, the RS Branch Office shall turn to RHO for further actions with the losing Society to be agreed;

- .2 all the losing Society's remaining requirements, of which the due date has not expired yet, shall be clearly indicated in the Summary Report on Ship's Transfer of Class (Form 6.3.50) and in the ship's List of Survey's Status (Form 6.3.51-1) with their due dates retained;
- .3 any additional information for the Shipowner and/or Surveyor (Memoranda) in the losing Society's Survey Status, which is applicable to the ship in accordance with the RS rules, shall be entered in the Summary Report on Ship's Transfer of Class (Form 6.3.50) and later on in the ship's List of Survey's Status (Form 6.3.51-1).

On entering the information in the Summary Report on Ship's Transfer of Class, a first-hand copy from the losing Society's Survey's Status may be used as a mandatory attachment to the Summary Report on Ship's Transfer of Class (Form 6.3.50), and the presence of such attachment shall be referred to in Section "Memoranda" of the Report.

**5.2.2.8** When an Interim Classification Certificate is issued, the RS Branch Office within a working day shall send a copy of the Summary Report on Ship's Transfer of Class (Form 6.3.50) with the attachment "Harmonization of Reporting" the Ship's List of Survey's Status (Form 6.3.51-1) and within 10 working days a copy of the set of documents issued to the ship under the survey results for verification check to RHO and to the RS Branch Office for in-service supervision.

RHO shall inform the losing Society of the date of its issue within a month since issuing the Interim Classification Certificate and forward the Report with confirmation of the date, location and actions taken to carry out each overdue survey, overdue recommendations/conditions of class specified by the losing Society. The RS Head Office shall make use of the Report Form G with Parts A and B duly completed and the Report ("Harmonization of Reporting") to the losing Society (refer to Annex 14).

- **5.2.2.9** Any additional information with regard to outstanding surveys or recommendations/conditions of class provided by the losing Society shall be handled in accordance with 5.2.2.4 and 5.2.2.7, as applicable, and reported to the losing Society with Form G (refer to Annex 21) with Part B-l duly completed within a month after completing the survey by RHO. When such additional information is received after issuing the Interim Classification Certificate, any overdue surveys or overdue recommendations/conditions of class shall be carried out at the first port of call:
  - .1 by the Register: for ships aged under 15 years;
  - .2 by the losing Society: for ships aged 15 years and over.

If the shipowner refuses to proceed directly, without further trading, to the Register-agreed port, where any overdue surveys or overdue recommendations/conditions of class issued by the Register or a losing Society based on the ship's age may be carried out, the Ship's Class shall be immediately withdrawn.

- 5.2.2.10 Prior to final class assignment RHO shall:
- .1 carry out and document the review of classification reports of the losing Society by an authorized person, taking into account the provisions specified in Annex 29;
- .2 advise the losing Society in writing of the anticipated date of final entry into class and that Form G with Parts A, B and B-l, when applicable (in accordance with the requirements of Article 10(6), Regulation (EC) No. 391/2009), duly completed has been sent.

The RS Branch Office which received the request for issuing a Full Term Classification Certificate shall respectively inform the RS Branch Office for in-service supervision.

The RS Branch Office for in-service supervision, subject to availability of the plans listed in 5.2.3.10 and the Vessel's Records shall confirm the possibility of issuing the Full Term Classification Certificate and forward the relevant copy of approval to RHO. The RS Branch Office, which issued a Full Term Classification Certificate, shall forward its copy to RHO within 10 working days in addition to the delivery specified in the Procedure for Application of the RS Document Forms Issued during Technical Supervision.

**5.2.2.11** The Register may, when needed, familiarize itself with the Classification Certificates and reporting documents of other Classification Societies under which the ship has been classed before.

- **5.2.2.12** The Register shall draw up a Classification Certificate for the duration of the Classification Certificate issued by the losing Society retaining the existing dates of periodical surveys, or for the full term, if an initial survey has been carried out to the extent of a special survey for all parts and the Register requirements affecting the Classification Certificate duration are unavailable.
- **5.2.2.13** Issuing a Full Term Classification Certificate, the RS Branch Office in charge of transfer of class shall send to RHO and the RS Branch Office for in-service supervision, within a working day, a copy of the Summary Report on Ship's Transfer of Class (Form 6.3.50) with the attachment "Harmonisation of Reporting" (refer to Annex 14) and the Ship's List of Survey's Status (Form 6.3.51-1) and within 10 working days a copy of the set of documents issued to the ship under the survey results.

RHO shall within a month since issuing a Full Term Classification Certificate forward Form G with duly filled in parts A, B, B1 (if applicable) and C. In case the losing Society advised recommendations/conditions of the ship's class, along with Form G the List of actions taken shall be submitted with the specified date, location and actions effected to carry them out.

RHO shall, within a month since issuing a Full Term Classification Certificate, forward a written confirmation on a date of a Full Term Classification Certificate issue to the Flag State MA.

**5.2.2.14** The Register reports to the losing Society on carrying out all overdue surveys and all overdue recommendations/conditions of class according to 5.2.2.8, 5.2.2.9 and 5.2.2.13 shall be prepared as "Harmonisation of Reporting" compiled in English with the specified date, location and actions effected to carry them out (refer to Annex 14).

"Harmonisation of Reporting" shall be issued by the RS Branch Office, which carried out transfer of class, as an attachment to the Summary Report on Ship's Transfer of Class (Form 6.3.50).

## 5.2.3 Technical requirements.

For transfer of class to the Register, the following technical requirements shall be applied the minimum extent of which is set forth in 5.2.3.1 to 5.2.3.13 below.

## 5.2.3.1 Plans.

The Register shall request from the Shipowner the copies of plans showing the main scantlings and the general arrangement of the specific ship and its machinery, as well as any proposals for alterations being dealt with, from the Shipowner. Receipt of the of the plans listed in 5.2.3.10, or equivalent, alternative technical data in lieu of specific plans or specifications shall be identified to the Shipowner as a prerequisite to issuing a Full Term Classification Certificate.

If the set of documents submitted is incomplete, an Interim Class Certificate shall be issued with a requirement on submitting copies of missing documents by the time of the ship following next classification (annual/intermediate/special, whichever comes first) survey, but no longer than for a year. The above plans or equivalent alternative technical data shall be forwarded to the Register in electronic format.

However, having made a good faith effort to obtain the lacking plans or their equivalents, if it is proves not practicable to acquire certain plans listed in 5.2.3.10 by the due date, the Register may issue the Full Term Classification Certificate stating therewith in the Report that the ship is being accepted into class on the basis of a recorded internal review of the circumstances prevailing with respect to unavailability of plans. The Report shall be provided with a document issued by the Shipowner in an optional form. The document shall contain the reasons explaining the absence or lack of plans, relevant diagrams, description of the technical supervision items not covered by the required plan specifying the necessary technical parameters regulated by the Rules, scantlings, material, manufacturer and date of manufacture. The data on the item of technical supervision shall be taken from the ACS certificates, Manufacturer manuals and other documents available on board.

A need for submitting plans for the ships built to be classed by the Register shall be agreed with the RS Branch Office for Supervision in Service, the data forwarded to RHO.

Following transfer of class the plans submitted by the shipowner during survey of the ship shall be sent to the RS Branch Office upon the completion of procedure of transfer of class are forwarded to the RS Branch Office for Supervision in Service or RHO, the ship being in service under the RHO technical supervision.

## **5.2.3.2** Class entry surveys.

Notwithstanding the reports indicating that all the surveyed items meet the specified require—ments, a class entry survey shall be carried out by the Register, the minimum extent of which shall be based on the age of the ship and its classification survey's class status as determined by the losing Society, as follows below.

Note. A class entry survey (hereinafter referred to as the survey) may be, but not required to be, credited as a specified periodical survey for confirmation of a class.

Recommendations and/or conditions of class due for compliance at a specified periodical survey for maintenance of classification need not be carried out/complied with at the class entry survey unless:

the class entry survey is credited as the specified periodical survey for maintenance of classification; recommendations/conditions of class are overdue.

## **5.2.3.3** Hull class entry survey:

- .1 ships aged under 5 years shall be surveyed to the extent of an annual survey;
- .2 for ships between 5 and 10 years of age the survey shall include an annual survey and inspection of a representative number of ballast spaces;
- .3 for ships of 10 years of age and above but less than 20 years of age, the survey shall include an annual survey and inspection of a representative number of ballast tanks and cargo spaces;

For gas carriers, in lieu of internal inspection of cargo spaces, the following applies:

internal inspection of representative spaces surrounding cargo tanks, including external inspection of the tank and its supporting systems as far as possible;

review of cargo log books and operational records to verify the correct functioning of the cargo containment system.

- .4 for oil tankers, bulk carriers (including ore carriers and combination carriers) and chemical tankers aged 15 years and above but less than 20 years, the survey shall have the scope of a special or intermediate survey, whichever is due next;
- .5 for all ships aged 20 years and above, the survey shall have the scope of a special survey (also applicable to the ships which have their hull under continuous survey);
- .6 the following shall be applied to floating production storage and offloading units (FPSO) and/or floating storage and offloading units (FSO):

ships aged under 5 years, the survey have the scope of an annual survey; for ships aged between 5 and 10 years the survey shall include an annual Survey and inspection of 20 per cent of the ballast tanks;

for ships aged between 10 and 20 years, the survey shall include an annual survey and inspection of 20 per cent of ballast tanks and 20 per cent of cargo spaces; for ships aged 20 years and over the survey shall have the scope of a special survey;

- .7 for site specific Floating Production, Storage and Off-loading units (FPSO) and/or Floating Storage and Offloading units (FSO) which have been converted from other ships, the survey shall take the form of an annual survey and also indicate inspection of 20 per cent of ballast spaced and 20 per cent of cargo spaces until 20 years have elapsed since conversion. After 20 years the survey shall have the scope of a special survey;
- .8 in the context of applying the requirements specified in 5.2.3.3.4 and 5.2.3.3.5, if a docking survey of a ship is not due at the time of transfer of class, consideration may be given to carrying out an in-water survey in lieu of docking survey. If the docking survey at the time of transfer of class is overdue, this survey shall be carried out (the in-water survey is not allowed);
  - .9 in the context of applying the requirements specified in 5.2.3.3.1 5.2.3.3.6 as applicable:
- .9.1 if the survey is credited as a periodical survey for maintenance of class, the Register may consider the acceptance of thickness measurements taken by the losing Society provided they were carried out within the applicable survey window specified for the periodical survey in question;
- .9.2 if the survey is not credited as periodical for maintenance of class, Register may consider the acceptance of thickness measurements taken by the losing Society provided they were carried out:

within 15 months prior to completion of class entry survey when it is in the scope of a special survey; within 18 months prior to completion of class entry survey when it is in the scope of an intermediate survey;

- .9.3 in both cases the thickness measurements shall be reviewed by the Register for compliance with the acceptable survey requirements, and confirmatory gauging shall be taken to the satisfaction of the Register;
- .10 in the context of applying the requirements specified in 5.2.3.3.3 5.2.3.3.6, as applicable, tank testing for ships aged over 15 years is not required to be carried out as part of the class entry survey unless the class entry survey is being credited as a periodical survey for maintenance of class if the class entry survey is to be credited as periodical survey for maintenance of class, consideration may be given by the gaining society to the acceptance of the tank testing carried out by the losing society provided they were carried out within the applicable survey window of the periodical survey in question;
- .11 in the context of applying the requirements specified in 5.2.3.3.1 to 5.2.3.3.6, as applicable, compliance with IACS Unified Requirements that require compliance at the forth coming due periodical surveys (such as UR S26 and UR S27) is not required to be carried out/completed as part of the class entry survey unless the class entry survey is credited as a periodical survey for maintenance of class;
- .12 examination and measurement of anchors and anchor chains in the contest of applying the requirements specified in 5.2.3.3.4 and 5.2.3.3.5 for ships aged over 15 years are not required to be carried out unless the class entry survey is being credited as a periodical survey for maintenance of class.

If the class entry survey is credited as a periodical survey for maintenance of class, the gaining society may consider the acceptance of the examination and measurement of anchors and anchor chains taken by the losing society provided they were carried out within the applicable survey window specified for the periodical survey in question.

**5.2.3.4** Machinery class entry survey.

A general examination of all essential machinery shall be held and shall include:

- .1 verification of the adjustment of all safety valves of pressure vessels, steam boilers, economisers and steam generators, as well as operation test of oil burning equipment of boilers;
  - .2 check of all pressure vessels;
- .3 insulation resistance, generator circuit breakers, preference tripping relays and generator prime mover governors shall be tested and paralleling and load sharing shall be proved;
- .4 in all the cases navigating lights and indicators shall be examined and their working and alternative sources of power verified;
- .5 bilge pumps, emergency fire pumps and remote control for oil valves, oil fuel pumps, lubricating oil pumps and forced draught fans shall be examined under working conditions;
  - .6 recirculating and ice clearing arrangements, if any;
- .7 mooring trial of the main and all auxiliary machinery necessary for operation of a ship at sea together with essential controls and steering gear. Alternative means of steering shall be tested. A short sea trial shall be held at the Surveyors' discretion if the ship has been laid up for a long period;
  - **.8** check of initial start arrangements;
- .9 in case of oil tankers, a cargo oil system and electrical installation in way of hazardous spaces shall be checked for compliance with the Rules requirements. Where intrinsically safe equipment is installed, the Surveyors shall satisfy themselves that a recognised authority has approved such equipment. The safety devices, alarms and essential instruments of an inert gas system shall be verified and the very plant generally examined to ensure that it does not constitute a hazard to the ship.

Note. For the transfer of class or adding class at ship's delivery, 5.2.3.4.3 and 5.2.3.4.9 may be verified by reviewing the ship's record.

**5.2.3.5** Assessment of technical condition of ship's hull structures shall be carried out in accordance with Section 5, Part I "General provisions" of the Rules.

For assessment of technical condition of hull structures of MODU/FOP it is necessary to follow the applicable requirements of Section 19, Part III "Additional Surveys of Ships Depending on Their Purpose and Hull Material" of the Rules.

**5.2.3.6** Operational (ship) documentation on stability and, if applicable, strength shall be submitted by shipowner or authorized shipowner's representative to the RS surveyor, carrying out the survey of the ship, to check its content as follows (as applicable):

Loading manual;

Stability information;

Grain Loading Stability Information;

Non-Grain Bulk Cargo Loading Stability and Strength Information;

Damage Trim and Stability;

Manual of operation (for MODU/FOP);

Inclining test/ Lightweight survey report or relevant summarized document, approved by the previous Flag State MA or organization authorized by the Flag State MA.

Thus, the following shall be checked, as a minimum:

information on major ship's conversion or modernization, repairs, replacement of machinery, devices, equipment and outfit that could lead to alterations in the ship's lightship parameters;

availability of all necessary documentation, availability of stamps on approval of documentation by ACS - IACS member or the Flag State MA (where required), and also for compliance with which documents the documentation has been developed and approved (performance of the applicable requirements of the RS rules, SOLAS - 74 as amended, International Code on Intact Stability, International Code for the Safe Carriage of Grain in Bulk, etc.);

availability of the stability calculation with regard to icing conditions (established by the LL-66/88 / the Load Line Rules for Sea-Going Ships on ships for ships operating within a seasonal winter zone in winter); availability of translation into working language of the crew, etc..

The following documents shall be additionally submitted for verification of the damage stability documentation:

Plan of subdivision showing all watertight structures and openings with indication of types of closing appliances;

Calculations of sectional areas of cross-flooding fittings and of uprighting time;

Ballast and bilge system plan;

General arrangement plan;

Diagram of Watertight Compartments (Capacity plan).

In the absence of comments, information on ship's conversion, modernization and alterations the relevant stability/strength documentation on board a ship shall be subject to approval by RS surveyor carrying out the survey (if approval is required by the Flag State MA or according to the RS rules) and is to be stamped by him appropriately.

If any deficiencies or lack of necessary information are found in the ship's documentation on stability/ strength, the documentation on board may be temporarily approved by RS surveyor carrying out the survey for a period not exceeding the upper limit of the "window" of the next nearest classification survey (i.e. annual/intermediate/special depending on what comes first), but not more than 12 months from the date of assignment of the RS class to the ship, unless otherwise indicated by RHO.

Thus, the RS Surveyor shall impose the requirement to develop the necessary documentation, to update the existing one and with regard to the necessity of its approval by the Register, to translate documentation into the working language of the crew and to submit all necessary documentation approved by RS and translation of it (if required) on board the ship within documentation temporary approval term.

If it is found out that unauthorized alterations have been made to the design of the ship's hull, RHO shall be immediately informed about it to make a decision on further actions with regard to the documentation.

- **5.2.3.7** To assess a loading/stability instrument, the following shall be forwarded by the shipowner or its authorized representative to the RS surveyor carrying out the survey: User's Manual, printout of calculation of four test load cases. With satisfactory repeatability of control calculations, the four test load cases must be approved and the User's Manual agreed. The results of verification on board the ship are drawn up according to 2.2.2.5 of part II "Survey schedule and scope" of the Rules.
- **5.2.3.8** The availability of emergency outfit on board in accordance with the requirements of Section 9, Part III "Equipment, Arrangements and Outfit" of the Rules for Construction shall be checked, if applicable (the requirements cover the ships flying the RF flag. For the ships flying the flags of other countries the requirements for emergency outfit shall be advisory).

**5.2.3.9** For all ships, according to 1.4.9, Part II "Hull" of the Rules for the Construction irrespective of the date of construction, the Loading Manual shall be submitted to RHO for approval (refer to 5.2.3.6) regardless the date of the ship construction.

**5.2.3.10** Plans to be submitted to the Register by the Shipowner:

.1 main plans:

general arrangement drawing;

capacity plan;

hydrostatic curves;

loading manual;

damage stability calculation, where applicable;

.2 steel hull plans:

midship section;

scantling plan;

decks plan;

shell expansion plan;

transverse bulkheads plan; rudder and rudder stock;

hatch covers plan;

for ships constructed in compliance with the Common Structural Rules for Double Hull Oil Tankers and for Bulk Carriers (hereinafter referred to as "the CSR ships"), plans showing for each structural element both as-built and renewal thicknesses and any thickness for "voluntary addition;

.3 machinery plans:

machinery arrangement plan;

intermediate, thrust and propeller shafts plan;

propeller plan;

main engines, propulsion gear and clutch systems (or Manufacturer's name, type, model and technical data);

additionally for steam turbine ships, main boilers, superheaters and economisers (or manufacturer's name, type, model and technical data) and main steam piping;

bilge and ballast piping diagrams;

circuit diagrams of power generation and distribution from main and emergency sources;

steering gear systems piping and arrangements, manufacturer's name and technical data;

- .4 torsional vibration calculation (to be submitted for ships aged under two years);
- .5 additionally for ships with ice class notation: plans for flexible couplings and/or torque limiting shafting devices (or manufacturer's name, type and technical data);
- .6 (additionally) for oil tankers: plans of pumping arrangements at the forward and aft ends and drainage of cofferdams and pump rooms, of cargo piping in tanks and on deck;
- .7 additional plans required for unattended machinery space notation: instrument and alarm list; fire alarm system; list of automatic safety functions (e.g. slowdown, shutdown, etc.); function testing plan;
- .8 document(s) on approval of the application of the alternative (equivalent) structures and equipment, where applicable;
  - .9 additional information which may be required according to the Flag State requirements.

Alternative technical data may be accepted by the Register (refer to 5.2.3.1) in lieu of the specific item of the listed documentation not being available at the time of transfer;

- .10 In addition, the following documents shall be submitted for MODU and FOP:
- .10.1 drawings of stability columns, columns of submersible sea water pumps, jack houses, substructure for drilling derrick with elements when stowed for sea, tanks and footings of legs, drill floors of submersible and semi-submersible MODU, jacking system and fixing arrangements of self-elevating MODU, location of hazardous zones with indication of their category, arrangement of all electrical equipment and cabling in hazardous spaces and areas, remote central jacking control stations of jacking system of self-elevating MODU;

- .10.2 information on the MODU and FOP stability on the seabed under the effect of wind, wave, current, weight and buoyancy, etc;
- .10.3 elementary diagrams of control, interlocking, protection and alarm systems of the electric drives of the jacking mechanisms of self-elevating MODU with indication of their technical characteristics, mechanisms for lifting and lowering of sea water pipe and submersible sea water pumps, the electric remote control systems for these electric drives, protection and alarm systems.
- .10.4 description of principle of operation of control, interlocking, protection and alarm systems of the remote control devices of jacking system of a self-elevating MODU;
  - .10.5 Operating Manual for MODU and FOP;
- .10.6 conclusion of competent bodies on fire and explosion safety of MODU and FOP components related to the operation of the drilling equipment.
- **5.2.3.11** The losing Society shall, at the Register's request, submit the following statutory documentation, if applicable, to the extent established by the relevant Flag State within legally binding limits:
  - .1 freeboard calculations (LL-66);
  - .2 description of conditions for load line assignment (Report on Initial Survey (Load Line));
  - .3 subdivision calculations (Reg. 27, LL-66);
  - .4 Record of Approved Cargo Ship Safety Equipment (SOLAS-74 as amended);
  - .5 documentation on oil tankers in compliance with the MARPOL-73/78 Convention:

reports on survey of a crude oil washing system in compliance with 4.2.10, IMO resolution A.446(XI); approved calculations on size restrictions and general arrangement of cargo tanks; approved calculations of ship's intact stability and damage stability;

- .6 copies of Statutory Certificates with Supplements;
- .7 copies of Certificates issued in compliance with other international conventions, agreements and codes;
  - .8 list of deficiencies within the competence of international conventions;
  - .9 report on the condition assessment resulting an Enhanced Survey Report.

Submission of Register-requested additional documents for issuing Statutory Certificates shall preferably be considered by the losing Society within the requirements specified by the Flag State concerned and legally binding limits.

The copies of the freeboard calculation, Report on Initial Survey, Record of Approved Cargo Ship Safety Equipment, MARPOL Certificates shall be provided free of charge. Expenses associated with duplication and postage of voluminous document copies (e.g. stability and subdivision documents or documents associated with issuing certificates of compliance with the MARPOL 73/78 requirements) shall be charged for.

- **5.2.3.12** For the ships built on 1 January 2007 and after this date, it is necessary to check the availability of the set of as-built drawings on board listed in 5.2.3.10.1, 5.2.3.10.2 (except for a drawing of hatch covers), as well as schemes of ballast and drainage systems with confirmation that all the subsequent alterations in the ship's structure, if they were carried out, are approved by ACS and specified on these drawings (refer to 2.1.2.2.29 of Part III "Survey of Ships in Compliance with International Conventions, Codes, Resolutions" and the Rules for the Equipment of Sea-Going Ships).
- **5.2.3.13** When assigning the ice class, it shall be assigned to be equal to the ice class of ACS-IACS member according to Tables 2.1.3, 2.1.4 or 2.1.5 (column 3) (refer to "IACS Class Notations. Reference Book") or to be lower, in case the evidence for decreasing the ACS ice class is available.

When the ship is assigned to ice class (III, II, IC, IB, IA, IA Super) in compliance with the requirements of the Finnish-Swedish Ice Class Rules, it may be transferred with no change to the RS class (refer to Section 10, Part XVII "Distinguishing Marks and Descriptive Notations in the Class Notation Specifying Structural and Operational Particulars of Ships" of the Rules for Construction).

When assigning to ice classes **Arc4** or higher, the provisions of 3.2.7.1.1 to 3.2.7.1.3, Part II "Survey Schedule and Scope" of the Rules shall be met.

**5.2.3.14** For the ships which are covered by provisions of international conventions and codes the surveys shall be carried out in compliance with the applicable requirements of IC and codes as well as

agreements and the Flag State MA instructions (including instructions received additionally upon RHO's request). The scope of survey shall be determined by provisions of Part III "Survey of Ships in Compliance with International Conventions, Codes, Resolutions and Rules for the Equipment of Sea-Going Ships

## 5.2.4 Obligations of the Register being the losing Society.

**5.2.4.1** If a Shipowner advises the Register of any intention to transfer class to Another Classification Society, RHO shall immediately confirm (in writing) to the Shipowner any overdue surveys and outstanding recommendation/conditions of class, together with outstanding fees.

To retain the ship in the Register class, the RS Branch Office for in-service supervision shall negotiate with the shipowner on the reasons of transfer of class to the ACS, discuss an opportunity of retaining the class or the assignment of a dual/double class.

**5.2.4.2** Upon receipt of a written request of the gaining Society on Form G (Part A), RHO shall send an inquiry to the RS Branch Office for in-service supervision to obtain the pertinent information needed. Having received the RS Head Office inquiry, the Branch Office shall immediately, within a business day, inform the RS Head Office of all the pertinent data relating to the ship's Survey Status, including the complete list of overdue surveys, recommendations/conditions of class with the relevant due dates set for the given ship, as well as of the data on applicability of IACS UR S19, S22, S23, S26, S27, S30 and S31 and/or another IACS UR of S series if applicable to the ship and its compliance therewith.

For ships being subject to enhanced surveys, the following documents shall be provided:

the last Executive Hull Summary (Condition Evaluation) Report;

Enhanced Survey Programme for the next special or intermediate survey, irrespective of whether the gaining Society intends or does not intend to credit the survey as a periodical survey for class maintenance.

**5.2.4.3** RHO within two working days since receipt of a written request shall forward all the information listed in 5.2.4.2 to the gaining Society. To report on Survey's Status the Register shall use Form L (refer to Annex 20) with Part A duly completed. Details may be amplified, if necessary, in accompanying documents.

In cases where the ship's Survey Status received contains vague or unclear descriptions, RHO shall provide additional detailed information in English on request of the gaining Society. RHO also is obliged to advise the gaining Society of the possibility of further recommendations/conditions of class arising from surveys which the Register knows have been carried out but for which reports have not yet been received.

- **5.2.4.4** The Register, within a month since the receipt of the request, shall:
- .1 provide the gaining Society with an access to all class documents (Ship's File) for examination and preparing including a report on the thickness measurements of the latest special survey and details of any subsequent thickness measurements, including areas with critical corrosion to review and compile Vessel's Records, as specified in Annex 29;
- .2 as an alternative, if requested by the gaining Society provide it with the copies of the ship's File (class reports) including a report on the thickness measurements of the latest special survey and details of any subsequent thickness measurements, areas with critical corrosion to review and compile Vessel's Records included, as defined in Annex 29. If the survey documents are in electronic files, they can be transferred in soft (in electronic format);
- .3 submit the Vessel's Records in the scope not less than specified in Annex 29, remaining from all the previous transfers of class performed since 1 July 2001.
- **5.2.4.5** After forwarding the ship's Survey's Status to the gaining Society RHO shall send the following to the gaining Society:
- .1 within one month from the date of receipt of a request to transfer class from the gaining Society additional information on outstanding surveys, recommendations/conditions of class identified according to the results of surveys proximate to the date of the Shipowner's written request for transfer of class which were not included in the said Status (the information shall be sent on Form L with Part A-l completed);
- .2 within five working days from the date of receipt of a request to transfer class from the gaining Society information on structural diminution allowances which were applying to the ship. The information shall be sent on Form L with Parts A and A-1 (when applicable) duly completed);

- .3 within twelve working days from the date of receipt of a request to transfer class from the gaining Society assessment reports in accordance with IACS UR S19/S31 (when applicable).
- **5.2.4.6** For CSR ships, the shipowner shall submit to the gaining society plans showing for each structural element both as-built and renewal thicknesses and any thickness for "voluntary addition".
- **5.2.4.7** To ensure mutual exchange of information on ships transferring class and on the survey status of such ships, RHO shall, on completion of a withdrawal of class, dispatch Form L with Parts A, A-1 (when applicable) and B duly completed to the Class Transfer Database and to the gaining Society.
- **5.2.4.8** Should the Register, upon receiving information from the gaining Society pursuant to the disposition of the transfer of class, have clear grounds for believing that the gaining Society did not fulfil its obligations, then it shall notify the gaining Society of its concerns and attempt to settle any differences.
- **5.2.4.9** The Register, as the Society which classed the ship prior to transfer to the losing Society, is obliged to submit the copies of class documents to the gaining Society to the extent of available information for preparing the Vessel's Records the extent of which is specified in Annex 29.

# 5.2.5 Transfer of class at ship's delivery.

- **5.2.5.1** These requirements are applicable when the Society, which carried out the technical supervision of ship's construction (i.e. losing Society), has issued its first Classification Certificate to the ship.
  - **5.2.5.2** Obligations of the Register being the Gaining Society.
- **5.2.5.2.1** On receipt of the Shipowner's request for transfer of class into the Register class, RHO shall immediately notify in writing the Shipowner as follows:
- .1 all the recommendations/conditions of class issued by the losing Society as well as conditions specified in 5.1.7.4, shall be dealt with by their due dates;
- .2 copies of the plans listed in 5.2.3.10 shall be provided to the Register as a prerequisite to issuing a Full Term Classification Certificate.

If the shipowner is unable to submit all of the required plans, it shall be recommended to request to the losing Society to transfer lacking plans directly to the Register on its demand. In doing so, the shipowner shall be advised that the invoice for the provided plans shall be issued by the losing Society to RHO which will pass it to the shipowner. In this case, the shipowner shall confirm a guaranty of payment to RHO for the lacking plans provided.

**5.2.5.2.2** Prior to issuing an Interim Classification Certificate on the date of the ship's delivery, the Register shall obtain:

a written request from the shipowner for transfer of class (in an arbitrary form) and Authorization for Release of Ship's Survey Status And Information (Form 7.1.24) to the Register in English to get from the losing Society a copy of the first Classification Certificate. Where the shipowner applies to the RS Branch Office, a request shall be redirected to RHO within a working day since its receipt;

a copy of the first Classification Certificate from the Head Office of the losing Society or one of its representations, or from the Surveyor carrying out the technical supervision of ship's construction at the yard including any recommendations/conditions of class and information normally contained in the ship's Survey Status.

**5.2.5.2.3** After receipt of a written request from the shipowner for transfer of class, RHO shall notify the losing Society of the requested transfer of class using Form G in Annex 21 with Part A completed and attaching the shipowner's authorisation for release of the first Classification Certificate, including the list of any recommendations/conditions of class with the respective due dates and information normally contained in the Survey Status.

If the Register does not receive the above documents from the losing Society on the date of the ship's delivery, the documents provided by the shipowner may be used and, after complying with the other relevant requirements of this Chapter, an Interim Classification Certificate may be issued.

In such cases, a statement shall be included in or with the Interim Classification Certificate reminding the shipowner that the conditions in 5.2.5.2.2 are still applicable.

**5.2.5.2.4** The Register shall not issue an Interim Classification Certificate or other documents permitting the ship's operation in the following cases:

until all the relevant surveys specified in 5.2.3.2 have been satisfactorily completed;

before giving the opportunity to the Maritime Administration of the Flag State to provide the Register with any further instructions in compliance with the provisions of Article 10(5), Regulation (EC) No. 391/2009 within three working days.

RHO shall provide the RS Branch Office, which is authorized to carry out the transfer of class procedure, with an instruction of the Maritime Administration, if available.

**5.2.5.2.5** The validity of the Interim/Full Term Classification Certificate issued by the Register is subject to any outstanding recommendations/conditions of class previously issued against the ship being completed by the due date and as specified by the losing Society. Any outstanding recommendations/conditions of class with their due dates shall be clearly stated in the following documents:

First Classification Certificate or the Summary Report on Ship's Transfer of Class (Form 6.3.50) on board;

ship's List of Survey's Status (Form 6.3.51-1) when the Classification Certificate is issued.

**5.2.5.2.6** When an Interim Classification Certificate is issued, the RS Branch Office shall, within a working day, shall send to RHO a copy of the Summary Report on Ship's Transfer of Class (Form 6.3.50), the ship's List of Survey's Status (Form 6.3.51-1) and, within 10 working days, a copy of the set of documents issued to the ship for verification check.

RHO shall, within a month since issuing the Interim Classification Certificate, advise the losing Society of the date of issuing this Certificate. For this purpose, the report Form G with Parts A and B duly completed shall be used.

**5.2.5.2.7** When a Full Term Classification Certificate is issued, the RS Branch Office which handled transfer of class, within a business day, shall send to RHO a copy of the Summary Report on Ship's Transfer of Class (Form 6.3.50), the ship's List of Survey's Status (Form 6.3.51-1) and, within 10 working days, a copy of the set of documents issued to the ship for verification check.

The Branch Office which received the request for issuing a Full Term Classification Certificate instead of Interim one shall respectively inform the RS Branch Office for Supervision in Service.

The specified RS Branch Office, if the drawings listed in 5.2.3.10 are available, confirms the possibility of issuing the Full Term Classification Certificate and forward the relevant copy to Survey Department to RHO. The RS Branch Office which issued a Full Term Classification Certificate, shall forward its copy RHO within 10 business days in addition to the forwarding prescribed by provisions the Procedure for Application of the RS Document Forms Issued during Technical Supervision.

RHO shall, within one month since issuing the Full Term Classification Certificate, dispatch the report Form G with Parts A, B and C duly completed to the losing Society.

In cases where the losing Society has reported recommendations/conditions of class on the ship, together with Form G, an itemised list of actions taken with the date and location and actions to be taken, to satisfy each recommendation/condition of class shall be provided.

- **5.2.5.2.8** The reporting by the Register to the losing Society required in 5.2.5.2.7 shall be made as "Harmonisation of Reporting" in English to the losing Society in compliance with attachment to the Summary Report on Ship's Transfer of Class (Form 6.3.50) in compliance with Annex 14.
  - **5.2.5.3** Obligations of the Register being the Losing Society.
- **5.2.5.3.1** Upon receipt of a written request of the gaining Society on the date of the ship's delivery, RHO shall urgently send an inquiry to the RS Branch Office which has carried out the technical supervision of ship's construction and has issued the First Classification Certificate to the ship.

Upon receipt of RHO inquiry, the RS Branch Office shall send a copy of the First Classification Certificate to RHO including a list of any recommendations/conditions of class with the respective due dates and information normally contained in the ship's List of Survey's Status.

Form L (refer to Annex 20) with Part A completed shall be used by RHO to report to the losing Society. Details may be amplified, if necessary, in accompanying documents.

**5.2.5.3.2** RHO shall, within one month since issuing the first Classification Certificate, forward to the gaining Society the structural diminution allowances which were applying to the ship (the information shall be sent on Form L with Parts A and A-1 (when applicable) completed).

- **5.2.5.3.3** To ensure mutual exchange of information on ships transferring class and on such ship's Survey Status, RHO shall, on completion of a withdrawal of class, dispatch Form L with Parts A, A-1 (when applicable) and B duly completed to the Class Transfer Database and to the gaining Society.
- **5.2.5.3.4** Shall the Register, upon receiving information from the gaining Society pursuant to the disposition of the transfer of class, have clear grounds for believing that the gaining Society did not fulfil its obligations, the RS Head Office shall notify the gaining Society of its concerns and attempt to settle any differences.

# 5.2.6 Other requirements.

- **5.2.6.1** Any differences which cannot be settled between two Societies privately shall be settled in compliance with the IACS procedure for handling a complaint (IACS Procedure, Volume 3, Annex 4 refer to http://www.iacs.org.uk/publications/procedures/.
- **5.2.6.2** As the ship may be laid up, the gaining Society shall check the classification status from the previous Society in order to verify if this procedural requirement is applicable.

### 5.3 ASSIGNMENT OF THE REGISTER CLASS TO SHIPS NOT CLASSED BY ACS - IACS MEMBER

### 5.3.1 General.

- **5.3.1.1** The requirements of the present Chapter shall apply for the Class assignment to ships of over 100 gross tonnage of whatever type self-propelled or not, restricted or unrestricted area of navigation except for the ships where the provisions of 5.2 or 6.2.
- **5.3.1.2** For ships of gross tonnage 100 and below the requirements of this Chapter shall apply as far as practicable and reasonable. While all the decisions concerning classification are made by the RS Branch Office for in-service supervision in conjunction with the RS Branch Office carrying out the survey.
- **5.3.1.3** Classification certificate shall be issued by RS for a full term upon completion of initial survey of the ship for class assignment.
- **5.3.1.4** In case of classification of a ship where the RS class has been withdrawn, the provisions of 4.8 shall apply.
- **5.3.1.5** An expected class notation shall be determined by RHO when preparing authorization to the RS Branch Office for performing assessment of a ship compliance with the Rules for Construction (refer to 5.1.5).

The RS character of classification shall be assigned to the ships and floating facilities built without survey of the classification society - IACS member and in general without any survey by a classification society in compliance with 2.2.2.3, Part I "Classification" of the Rules for Construction.

For the ships constructed to or classed by ACS - IACS member in service and not covered by the provisions of 5.2.1, the RS character of classification shall be assigned in compliance with 2.2.2.3, Part I "Classification" of the Rules for Construction.

Distinguishing marks and descriptive notations shall be added to the expected RS class notation in compliance with 2.2.3 - 2.2.39, 2.3, Part I "Classification" of the Rules for Construction upon results of the shipowner's application review (refer to 5.1.3).

The final class notation shall be assigned to the ship considering the RS reviewed documentation on taking the ship to the level of the compliance with the applicable RS Rules for Construction and shall be confirmed by RHO upon receipt of the RS Branch Office request for giving the distinctive number in compliance with the RS prescribed procedure.

Changing of the confirmed class notation shall be performed according to 3.2, Part II "Survey Schedule and Scope" of the Rules.

## 5.3.2 Obligations of the Register.

- **5.3.2.1** The RS class assignment shall be performed only upon obtaining of the written application by the shipowner.
  - **5.3.2.2** The application's review shall be performed in compliance with 5.1.3 and 5.1.4 by RHO.

- **5.3.2.3** On the results of the application's review RHO shall notify the shipowner in writing of the terms of acceptance of a ship to the RS Class, taking into consideration the following:
- .1 assessment of ship's compliance with the Rules for Construction in accordance with 5.1.5 to 5.1.6, as well as the initial survey for the RS class assignment specified in 5.3.3 shall be carried out in the full scope;
- .2 technical documentation in accordance with 5.3.3.2 shall be submitted to the Register for review and approval;
- .3 Classification Certificate can be issued only after the RS approval of the required technical documentation, performance of all necessary surveys, verification of the ship's compliance with the Rules for Construction (upon results of the assessment), as well as approval of equivalents, as appropriate.
- **5.3.2.4** Conditions of issue of Classification certificate, or other documents enabling the ship's operation are:
  - .1 performance of all relevant surveys in full scope;
- .2 review and approval of the technical documentation listed for verification of the assessment of the ship's compliance with applied Rules for Construction;
- .3 opportunity for the Maritime Administration of the Flag State to provide within three (3) working days the Register with further instructions in compliance with the requirements of Article 10 (5) of the Regulation (EC) N = 391/2009.

RHO shall forward a request to the Flag State MA to submit further instructions simultaneously with the authorization for the ship's survey to the RS Branch Office and supply it with the instructions of the corresponding Flag State MA if provided.

# 5.3.3 Technical requirements.

**5.3.3.1** According to the results of assessment of ship's compliance with the Rules for Construction in accordance with 5.1.4, 5.1.5 a shipowner or an authorized representative shall develop technical documentation to bring the ship in compliance with the applicable Rules for Construction. The documentation shall be forwarded to RHO or, on its behalf, to the RS Branch Office.

## **5.3.3.2** Technical documentation shall include:

- .1 hull members calculation in compliance with the Rules for Construction according to the local and overall strength, including assessment of permissible thickness of all the hull members regulated in accordance with 5.12.3 Part I "General provisions" of the Rules. Calculation shall be carried out in Russian or in English, or both. Title page and summary table with dimension allowances shall be in Russian and English or in English only. The option in Russian may be used for ships flying the Russian Federation flag unless they are engaged on international voyages;
- .2 documentation on ship's stability (operational) in Russian and/or English, including Stability manual, Grain Loading Stability Information, Non-Grain Bulk Cargo Loading Stability and Strength Information, Information on Damage Trim and Stability, as applicable;

In addition for MODU/FOP:

operating manual;

inclining test report or appropriate document, approved by the previous Flag State MA or organization authorized by the Flag State MA;

plan of subdivision showing all watertight structures and openings with indication of types of closing appliances;

calculations of sectional areas of cross-flooding fittings and of uprighting time;

ballast and bilge system plan;

- .3 documentation listed in 5.3.4;
- .4 actions for elimination of nonconformities (calculations, test results, drawings, etc.) in compliance with 5.1.6;
- .5 when assigning the ice class to a ship the requirements shall be met of 3.2.7.1.1 to 3.2.7.1.3, Part II "Survey Schedule and Scope" of the Rules.
- **5.3.3.3** In cases where the ship has been previously constructed to or classed by ACS IACS member, hull members calculation as per terms of local and overall strength may be specially considered

by RHO subject to confirmation of no alteration/modification to the ship. Such a confirmation shall be done by the RS Surveyor during assessment of ship's compliance with the Rules for Construction.

**5.3.3.4** Set of technical documentation shall be submitted in electronic format with the cover letter and a list of accompanying documents.

For submersible, semi-submersible self-elevating MODU and FOP and other units (pontoons, platforms, islands etc.) resting on a seabed and which may be transferred and installed on a new place, calculation on verification of compliance of hull structures of MODU/FOP with compliance of Part II "Hull" of the MODU/FOP Rules shall be carried out.

- **5.3.3.5** Technical documentation shall be subject to review by the Register in accordance with the established procedure "Procedure for the Review of Technical Documentation on Ships, Materials and Products".
- **5.3.3.6** Where technical documentation review is approved with remarks to be improved after the ship is assigned with the RS class, in the final letter of conclusion the requirement on making arrangements for the class retaining in due time in accordance with Section 7 of Part I "General Provisions" shall be stated.
- **5.3.3.7** When having made a good faith effort to obtain full information on the ship, but if it proves not practicable to submit certain plans listed in 5.3.4, then for the assignment of the Register class to the ship, the equivalent/alternative technical data shall be submitted to RHO or another RS Branch Office which deals with technical documentation.
- **5.3.3.8** The deviation from the Rules for Construction, as well as calculations, test results and other actions allowing apply such deviations shall be considered by the Register in the list of Actions for elimination of nonconformities (refer to 5.3.3.2).
- **5.3.3.9** Letter of conclusion based on the results of the review of documentation on verification of ship's compliance with the applicable Rules for Construction shall be forwarded to the shipowner by the RHO Classification Division or the RS Branch Office authorized to review it. List of approved / agreed equivalents (if any) shall be forwarded to the shipowner by the RHO Classification Division. The correspondence on the review of technical documentation, including authorization for the RS Branch Office, letters with comments, the letter of conclusion, list of equivalents shall be sent as a copy to the RHO Transfer of Class Department.
- **5.3.3.10** The initial survey of the ship for the RS class assignment shall be arranged by RHO on receipt of the copy of the letter of conclusion on review of technical documentation. The initial survey shall be carried out by the RS Branch Office only upon authorization of RHO. The RS Branch Office authorized to carry out the initial survey shall conclude the Agreement on initial survey and classification of ship (Form 430.1.8-3) with the shipowner.
- **5.3.3.11** The scope of the initial survey shall be determined by RHO in each case depending on the age of the ship and taking into account the technical condition of the items on the basis of the scope of the special survey, including bottom survey in dock. The scope of the initial survey of the ship shall be in accordance with the requirements of 2.4, Part II "Survey Schedule and Scope" as well as relevant Sections of Part III "Additional Surveys of Ships Depending on their Purpose and Hull Material" of the Rules. Assessment of the technical condition of the ship's hull structures shall be carried out in accordance with Section 5, Part I "General Provisions" of the Rules. During initial survey the Surveyor to the Register may request further examinations, tests and measurements, including but not limited materials testing, non-destructive testing and hydraulic testing.
- **5.3.3.12** Where during any portion of the five years prior to the request for classification being received, the ship has been previously classed by ACS IACS member, than survey requirements may be specially considered by the RHO. The scope of the said survey shall not be less than those required by 5.2.3.
- **5.3.3.13** In the course of the initial survey the RS Branch Office performing the survey shall make a detailed check of the actual compliance of the ship's structure, composition and location of the equipment and systems with the plans submitted. If nonconformities are detected on board, the shipowner shall be notified about the necessity of bringing of the ship in conformity with the plans submitted or the technical documentation revision with the applicable requirements of the Rules for Construction with its further approval by RS.

- **5.3.3.14** Ship's initial survey shall include technical supervision for bringing the ship in compliance with the Rules for Construction. The results shall be specified in the Report on Survey (Form. 6.3.10) or Ship's survey statement (Form 6.1.03).
- **5.3.3.15** RHO shall provide the RS Branch Office, authorized to carry out the initial survey, with instructions of the Flag State MA, if available.
- **5.3.3.16** Survey of the ship in compliance with the applicable international conventions, codes and resolutions, as well as statutory survey of the ship's equipment in accordance with the Register rules shall be carried out under Part III "Survey of Ships in Compliance with International Conventions, Codes, Resolutions and the Rules for Equipment of the Sea-Going ships".
  - 5.3.3.17 After completion of the initial survey the RS Branch Office shall:
- .1 within one working day send the ship's List of Survey's Status (Form 6.3.51-1) to RHO as well as to the RS Branch Office for in-service supervision;
  - .2 within 10 working days:

forward a copy of the set of documents issued to the ship, as well as approved technical documentation for the ship's compliance with the applicable Rules for Construction to the RS Branch Office for inservice supervision;

forward a copy of the set of documents issued to the ship for control check to RHO;

- **5.3.3.18** RHO within a month shall inform in writing the Flag State MA about the date of issue of the Classification Certificate.
  - **5.3.4** Plans to be submitted by the shipowner to the Register:
  - .1 main plans:

general arrangement drawing;

capacity plan;

hydrostatic curves;

damage stability calculation, where required; .

.2 steel hull plans:

midship section;

scantling plan;

decks plan;

shell expansion plan;

transverse bulkheads;

rudder and rudder stock;

hatch covers:

stern frame;

.3 machinery plans:

machinery arrangement plan of the propulsion plant;

shafting arrangement, i.e. intermediate, trust and screw shafts plan;

propeller plan;

main engines, propulsion gears and clutch systems (or manufacturer's name, type, model and technical data);

for steam turbine ships:

main boilers, superheaters and economisers (or manufacturer's name, type, model and technical data) and main steam piping;

bilge and ballast piping diagrams;

circuit diagrams of power generation and distribution from main and emergency sources;

steering gear systems, piping and arrangements and steering gear manufacturer's name and model information;

- .4 torsional vibration calculations (for ships less than two (2) years old);
- .5 additionally, for ships with ice class notation: plans for flexible coupling and/or torque limiting shafting devices in the propulsion line shafting (or Manufacturer name, model and technical data);

- **.6** additionally, for oil tankers: pumping arrangements at the forward and aft ends and drainage of cofferdams and pump rooms;
- .7 additional plans required for unattended machinery space notation: instrument and alarm list; fire alarm system; list of automatic safety functions (e.g. slowdowns, shutdowns, etc.); function testing plan;
  - .8 additional information that may be required for the documentation review;
  - .9 additional information may be necessary according the Flag State MA requirements;
  - .10 In addition for MODU and FOP the following documentation shall be submitted:
- .10.1 drawings of stability columns, columns of submersible sea water pumps, jack houses, substructure for drilling derrick with elements when stowed for sea, tanks and footings of legs, drill floors of submersible and semi-submersible MODU, jacking system and fixing arrangements of self-elevating MODU, location of hazardous zones with indication of their category, arrangement of all electrical equipment and cabling in hazardous spaces and areas, remote central jacking control stations of jacking system of self-elevating MODU;
- .10.2 information on the MODU/FOP stability on the seabed under the effect of wind, wave, current weight and buoyancy, etc.;
- .10.3 elementary diagrams of control, interlocking, protection and alarm systems of the electric drives of the jacking mechanisms of self-elevating MODU with indication of their technical characteristics, mechanisms for lifting and lowering of sea water pipe and submersible sea water pumps, the electric remote control systems for these electric drives, protection and alarm systems;
- .10.4 description of principle of operation of control, interlocking, protection and alarm systems of the remote control devices of jacking system of a self-elevating MODU;
  - .10.5 Operating Manual for MODU/FOP;
- .10.6 conclusion of competent bodies on fire and explosion safety of MODU/FOP components related to the operation of the drilling equipment.

#### **5.4 REGISTER DOCUMENTS**

- **5.4.1** The RS Classification Certificate shall be issued on the grounds of the Reports specified below.
- **5.4.1.1** In transfer of class the results of the ship's initial survey shall be executed in compliance with the Register internal procedures and the applicable provisions of the Guidelines and the Rules.
- **5.4.1.2** Upon completion of the ship's initial survey for the purpose of ship's class transfering into the Register class from another IACS Society's class, the Summary Report on Ship's Transfer of Class (Form 6.3.50) shall be prepared.
- **5.4.1.3** For cargo and passenger ro-ro ships, to be additionally executed is the Report on Survey of the Ship (Form 6.3.10), which confirms the ship's compliance with the applicable IACS UR Group S requirements.
- **5.4.2** During ship's transfer of class from another IACS Society without a change of flag, the statutory documents shall be issued in accordance with the provisions of 4.2.1, Part III "Survey of Ships in Compliance with International Conventions, Codes, Resolutions and the Rules for the Equipment of Sea-Going Ships".

During ship's transfer of class with a change of flag, the statutory documents shall be issued in accordance with the provisions of 4.2.2, Part III "Survey of Ships in Compliance with International Conventions, Codes, Resolutions and the Rules for Equipment of the Sea-Going Ships".

The results of ship's statutory surveys in transfer of class shall be issued using STORM system or, in reaso nable cases, as the reports corresponding to the survey types.

**5.4.3** Upon completion of the ship's initial survey the Photo-Report in compliance with the provisions of 3.4 Part I "General Provisions" shall be carried out.

APPENDIX 1



### RUSSIAN MARITIME REGISTER OF SHIPPING

# REPORT ON ASSESSMENT OF SHIP'S COMPLIANCE WITH THE RULES FOR CONSTRUCTION

Basic Vessel's Records:

Name of Chin	
Name of Ship	
IMO№	
Flag	
Port of Registration	
Classification Society. Class Notation.	
Type of Ship	
Date and Place of Ship Construction	
Gross tonnage	
Deadweight	
Ship Length (ITC-69)	
Power of Main Engine, kW	
Area of navigation	
Port of assessment Performance	Country Date
The Register shall not undertake assignments assessment.  The use of the Report by the Party which shall not involve responsibility by the R	nt of the RS class to the ship under the results of the ship's has ordered it and (or) by the third Parties in other purposes gister for the consequences of this decision. Under no
rendering services by Russian Maritime Reg Annexes:	go beyond the one specified in the General conditions for ter of Shipping (located in www.rs-class.org). for the ship compliance with the RS Rules for Classification

#### APPENDIX 2

# LIST OF NONCONFORMITIES TO BE ELIMINATED FOR THE SHIP'S COMPLIANCE WITH THE RS RULES FOR CONSTRUCTION

№ pp.	Item of technical supervision	Rules for construction par. <sup>1</sup>	Description of Nonconformity	Note by RHO
1	2	3	4	5

<sup>&</sup>lt;sup>1</sup> Rules for the Classification and Construction of Sea-Going Ships valid on the date of the ship construction unless otherwise specified in the following editions.

## 6 PROCEDURE FOR ASSIGNMENT, REINSTATEMENT AND WITHDRAWAL OF DOUBLE OR DUAL CLASS OF THE SHIP

#### 6.1 GENERAL PROVISIONS, DEFINITIONS

**6.1.1** The present Section has been developed in elaboration of the provisions set out in 1.2, Part II "Survey Schedule and Scope" of the Rules and includes the IACS procedural requirements mandatory for fulfilment in case of assignment, retainment and withdrawal of double or dual class of the ship.

This procedure and requirements in relation to class suspension, reinstatement or withdrawal, are applicable, unless stated otherwise, to ships of over 100 GT of whatever type, self propelled or not, restricted or unrestricted service, except for "inland waterway" ships.

The obligations of this procedure apply to classification societies which are subject to verification of compliance with QSCS.

**6.1.2** In addition to the definitions given in Section 2, Part I "General Provisions" of the Rules, for the purpose of this Section the following definitions are used:

A double classed ship is a ship which is classed with two Classification Societies and where each Classification Society acts as if it is the only Society assigning class to the ship concerned, and carries out surveys irrespective of the other Classification Society in accordance with its own requirements and schedule.

A dual class ship is a ship which is classed with two Classification Societies between which there is a written agreement specific for this ship, regarding sharing of activities, mutual recognition of surveys carried out by each of the Classification Societies on behalf of the other Classification Society and full exchange of information on the Class Status and Reports on Survey.

### 6.2 ADDING CLASS OF A SECOND CLASSIFICATION SOCIETY TO A SHIP ALREADY CLASSED BY ONE OF THE IACS MEMBERS

#### 6.2.1 Obligations of the Second Classification Society.

- **6.2.1.1** Whenever the Classification Society is requested by a Shipowner to accept an existing ship, already classed by another (first) Classification Society into its class under double or dual class arrangement, the Second Classification Society shall immediately notify the Shipowner in writing that:
- .1 the Second Classification Society accepts only such a ship that is free from any overdue surveys or outstanding recommendations/conditions of class;
- .2 the Shipowner shall inform the First Classification Society of his request to the Second Classification Society;
- .3 the Shipowner shall authorize the First Classification Society to submit to the Second Classification Society the data about its current Class Status and documents presented, as listed in Annex 29, for information and use by the Second Classification Society in conducting its surveys necessary for class assignment;
- .4 when the Shipowner decides to withdraw the double or dual class, then prior to withdrawing class of one of the two Classification Societies the Shipowner shall inform both Classification Societies of his intended actions;
- .5 when the Shipowner is advised that one of the Classification Societies involved in double or dual class assignment, temporarily suspends or withdraws its class, the Shipowner shall inform the remaining Classification Society of the action taken by the other (losing) Classification Society;
- .6 copies of the drawings listed in 5.1.3.10 shall be presented to the Second Classification Society as a prerequisite to obtaining a Full Term Classification Certificate. If the Shipowner is unable to provide all

the required drawings, the Second Classification Society shall request that the Shipowner authorizes the First Classification Society to transfer copies of such drawings to the Second Classification Society, with the advice that the First Classification Society shall make out an invoice for presentation of the documentation to the Second Classification Society and the Second Classification Society may, in its turn, recover the associated expenses from the Shipowner.

- **6.2.1.2** Within two working days after receipt a written request from the Shipowner for assignment of class of the Second Classification Society at the its Head Office or at one of its Designated Representations, the Second Classification Society shall notify the First Classification Society of the requested assignment of the second class to the ship using Form G (see Annex 21), with Part A being properly completed, and attaching the Shipowner's authorization for release of the Survey Status from the First Classification Society to the Second Classification Society.
- **6.2.1.3** Prior to issuing the Interim Classification Certificate, the Second Classification Society shall undertake the following:
- .1 to obtain from the Shipowner a written application for assignment of class of the Second Classification Society, containing an authorization for the Second Classification Society to obtain the current Class Status from the First Classification Society;
- .2 to obtain current Survey Status from the Head Office of the First Classification Society or from one of its Designated Representations;
- .3 for double class; to carry out survey to assign its class in accordance with the requirements of 5.2.3.2 taking account of the specified recommendations/conditions of class in the Class Status provided by the First Classification Society;
  - .4 for dual class; to carry out an initial survey in the scope of the annual survey, as a minimum.
- **6.2.1.4** The Second Classification Society, within one month from the date of issuance of the Interim Classification Certificate, shall notify the First Classification Society about the issuance of this Certificate.
- Form G (see Annex 21) with Parts A and B duly completed shall be used for notification. Any additional information concerning either outstanding surveys or recommendations/conditions of class received from the First Society in accordance with 6.2.2.5 shall be taken into consideration depending on what is applicable, and notifications upon Form G with Part B-1 duly completed shall be submitted to the First Society within one month after completing the survey.
- **6.2.1.5** Carry out and document the review of class survey records, of the first society, by an authorised person considering the items specified in Annex 29.
- **6.2.1.6** To ensure mutual exchange of information on ships subjected to class assignment and on Survey Status of such ships, the Second Classification Society shall, on completion of the class assignment procedure, dispatch Form G (see Annex 21) with Parts A, B and C duly completed, to the Class Transfer Database and to the First Classification Society.

#### 6.2.2 Obligations of the First Classification Society.

- **6.2.2.1** The First Classification Society, within two working days of receipt of a written request at its Head Office or at one of its Designated Representations, shall notify the Second Classification Society about the current class survey details, including a full list of surveys and recommendations/conditions of class. The most recent Condition Evaluation Report/Executive Hull Summary Report and Survey Planning Document for the commenced special survey (for ships under **ESP** mark in their class notation) shall be also provided. In case where the Class Status is received in a language not readily understood by the Second Classification Society or contains vague or unclear wording, the First Classification Society shall provide additional detailed information to the Second Classification Society in English upon its request. The First Classification Society is obliged to advise the Second Classification Society of the possibility of further recommendations/conditions of class arising from surveys, about which the First Classification Society knows that they have been carried out but for which reports have not yet been received. Report Form L (see Annex 20) shall be used by the First Classification Society to report on the Class Status; details may be amplified, if necessary, in accompanying documents.
- **6.2.2.2** The First Classification Society is obliged, within one month of receipt of the request, referred to in 6.2.2.1, to make available all class survey records to the Second Classification Society for review and

relevant reporting, to the extent this information is in the possession of the First Classification Society, so that the Second Classification Society can to retain the Vessel's Records, referred to in Annex 29, in accordance with 6.2.1.5.1.

- **6.2.2.3** Alternatively to 6.2.2.2, the First Classification Society is obliged to provide, within one month of receipt of the request, referred to in 6.2.2.1, a copy of the ship's file with records attached to the Second Classification Society upon its request, so that the Second Classification Society can to retain the Vessel's Records, referred to in Annex 29, in accordance with 6.2.1.5.1. This document may be e-mailed in case electronic files are available.
- **6.2.2.4** The First Classification Society, within one month of receipt of the request, referred to in 6.2.2.1, is also obliged to submit Vessel's Records regarding class (see Annex 29), embracing details of the present class and previous transfer of classs performed after July 1, 2001.
- **6.2.2.5** The First Classification Society shall, within one month from the date of issuance of its Class Status to the Second Classification Society, as per 6.2.2.1, forward to the Second Classification Society additional information on outstanding surveys and/or recommendations/conditions of class put forward in consequence of surveys carried out shortly before the date when the Shipowner's written request for assigning a second class to the ship was made, and not included in the mentioned status, by despatching Form L (see Annex 20) with Part A-1 duly completed, and information on the structural wear allowances, which were applied to the ship.

#### 6.3 RETAINING CLASS IN A DOUBLE OR DUAL CLASS ARRANGEMENT

- **6.3.1** Each Classification Society acts independently when the ship is in double class.
- **6.3.2** Each Classification Society acts also on behalf (upon authorization) of the other Classification Society, when the ship is in dual class, in accordance with the agreement adopted by these two Classification Societies.

## 6.4 CLASS ASSIGNMENT OF A SECOND CLASSIFICATION SOCIETY TO A SHIP CLASSED BY FIRST CLASSIFICATION SOCIETY AT SHIP'S DELIVERY

**6.4.1** The procedural requirements for class assignment at ship's delivery are applicable when the Society which has carried out the new construction technical review and surveys (i.e. First Classification Society) has issued its first Certificate of Class.

#### 6.4.2 Obligations of the Second Classification Society.

- **6.4.2.1** Whenever an IACS Classification Society (i.e. the Second Classification Society) is requested by a Shipowner to accept a ship already classed by another IACS Classification Society (i.e. the First Classification Society) into its class under double or dual class arrangement at ship's delivery, the Second Classification Society shall immediately notify the Shipowner in writing that:
- .1 the Shipowner shall inform the First Classification Society of his request to Second Classification Society:
- .2 the Shipowner shall authorise First Classification Society to submit to Second Classification Society its Certificate of Class;
- .3 when the Shipowner decides to leave the double or dual class arrangement and prior to withdrawing from the class from one of two Classification Societies the Shipowner shall inform the Societies of his intended actions;
- .4 when the Shipowner is advised that one of the Classification Societies involved in double or dual class arrangement suspends or withdraws class, the Shipowner shall inform the remaining Society of the action taken by the other Society without delay;
- .5 copies of plans listed in 5.2.3.10 shall be provided to Second Classification Society as a prerequisite to obtaining a full term Certificate of Class. If the Shipowner is unable to provide all of the required plans,

the Second Classification Society shall request that the Shipowner authorises the First Classification Society to transfer copies of such of these plans to the Second Classification Society with the advice that the First Classification Society will invoice the Second Classification Society and the Second Classification Society may, in turn, charge the associated costs to the Shipowner.

- **6.4.2.2** After receipt of a written request from the Shipowner for entry into Second Society's class at a Society's Head Office or one of its designated Representations, the Second Classification Society shall notify the First Classification Society of the requested entry into class using Form G with its Part A duly completed and attaching the Shipowner's authorisation for release to the Second Classification Society of the first Certificate of Class, including a list of any recommendations/conditions of class with respective due dates and the list of any information normally contained in the classification status.
- **6.4.2.3** Prior to issuing an Interim Classification Certificate on the date of the ship's delivery, the Second Classification Society shall obtain:
- .1 from the Shipowner, a written request for entry into the Second Classification Society's class on the date of the ship's delivery, containing an authorisation for the Second Classification Society to obtain a copy of the first Classification Certificate from the First Classification Society;
- .2 a copy of the first Classification Certificate from the Head Office of First Classification Society or one of its Representations or from the attending Surveyor at the shipyard, including any outstanding recommendations/conditions of class and information normally contained in the classification status;
  - .3 shall carry out and successfully complete all respective surveys listed in 5.2.3.10.
- **6.4.2.4** The Second Classification Society shall, within one month from issuing its Interim Classification Certificate, advise the First Classification Society of the date of issuing this certificate. The report Form G, with Parts A and B duly completed shall be used by the Head Office of the Second Classification Society.
- **6.4.2.5** Prior to final entry into the Second Classification Society's class, the Second Classification Society is obliged to obtain plans and information in accordance with the requirements of 5.2.3.10.
- **6.4.2.6** To ensure mutual exchange of information on ships adding class and on survey status of such ships, the Second Classification Society shall, on completion of final entry into class, dispatch Form G, with parts A, B and C duly completed, to the Class Transfer Database and to the First Classification Society.

#### 6.4.3 Obligations of the First Classification Society.

- **6.4.3.1** Upon receipt of a written request at its Head Office or one of its designated Representations and on the date of the ship's delivery, the First Classification Society shall notify the Second Classification Society its first Classification Certificate, including the list of any recommendations/conditions of class with respective due dates and the list of any information normally contained in the classification status. The report Form L with Part A completed shall be used by the First Classification Society; details may be amplified, if necessary, in accompanying documents.
- **6.4.3.2** The First Classification Society has one month from issuance of its First Classification Certificate to the Second Classification Society to forward to the Second Society the structural diminution allowances, which were applying to the ship, by dispatching Form L with Parts A and A-1 duly completed, if the latter is applicable.

#### 6.5 REGISTER DOCUMENTS

- **6.5.1** The RS Classification Certificate for the purpose of double or dual class assignment to the ship shall be reports on survey specified in 5.4.1.
  - **6.5.2** Statutory documents shall be issued in compliance with requirements of 5.4.2, 5.4.3.

## 6.6 WITHDRAWING CLASS OF ONE CLASSIFICATION SOCIETY FROM A DOUBLE CLASS ARRANGEMENT

- 6.6.1 Obligations of the Classification Society retaining its class (remaining Classification Society).
- **6.6.1.1** Whenever a Classification Society IACS Member being in a double class arrangement with another Classification Society receives a written request from a Shipowner pertaining to his intention to withdraw class of the other Classification Society, or information that the class has been withdrawn by the other Classification Society, the remaining Classification Society shall immediately notify the Shipowner in writing that:
  - .1 the Classification Certificate of the remaining Classification Society remains valid subject to:

for ships less than 15 years of age, completion by the remaining Classification Society of all recommendations/conditions of class of the withdrawing Classification Society at the first port of call where surveys can be conducted and fulfilment of any recommendations/conditions of class of the withdrawing Classification Society to be confirmed by the remaining Classification Society;

for ships of 15 years of age and over, completion by the withdrawing Classification Society of any outstanding recommendations/conditions of class of the losing Classification Society at their due dates;

- .2 the Shipowner shall authorize the remaining Classification Society to request from the withdrawing Classification Society its current Classification Status;
- .3 provisions specified in 6.5.1.1.1 and 6.5.1.1.2 above apply to any additional recommendations/ conditions of class issued against the ship, which were not included in the initial Survey Status provided previously to the remaining Classification Society by the withdrawing Classification Society because they have arisen from surveys carried out in close proximity to the date of request for withdrawal of the class. Such additional recommendations/conditions of class, if received after the issuance of the Interim Classification Certificate or endorsement of the validity of the Classification Certificate by the remaining Classification Society and which are overdue, shall be dealt with at the first port of call where surveys can be carried out by the relevant Classification Society depending on the ship's age.
- **6.6.1.2** The remaining Classification Society shall obtain from the Shipowner a written confirmation of his intention to withdraw the class of the withdrawing Classification Society, containing an authorization for the remaining Classification Society to obtain the current Class Status from the Head Office of the withdrawing Classification Society or from one of its Designated Representations.
- **6.6.1.3** Within two working days of receipt of a written confirmation from the Shipowner of his intention to withdraw the class of the remaining Classification Society at its Head Office or at one of its Designated Representations, the remaining Classification Society shall request the withdrawing Classification Society, based on the Shipowner's authorization, to release the Survey Status. However, if the remaining Classification Society does not receive the Class Status from the withdrawing Classification Society within three working days from the date of request, the remaining Classification Society may resort to the information on the Survey Status provided by the Shipowner and after complying with the other relevant requirements of this procedure the remaining Classification Society may confirm the validity of its Classification Certificate.
- **6.6.1.4** The remaining Classification Society shall suspend the validity of its Classification Certificate and other relevant documents, if any overdue surveys have not been satisfactorily completed, and any outstanding recommendations/conditions of class of the withdrawing Classification Society previously issued against the ship concerned, as specified to the Shipowner for fulfilment at the first port of call where surveys can be carried out depending on the ship's age, have not been complied with. When repair facilities are not available in the first port of call for carrying out survey, the ship may be allowed to proceed to the port where such facilities are available, may be accepted to conduct surveys resulted from outstanding recommendations/conditions of class. In that case, the remaining Classification Society shall inform the Shipowner and the withdrawing Classification Society of the decision taken (e.g. about agreement upon the direct voyage conditions and the port of repair).

**6.6.1.5** The validity of the Classification Certificate of the remaining Classification Society is subject to any remaining recommendations/conditions of class previously issued against the ship by the withdrawing Classification Society being fulfilled by the due date, as specified by the withdrawing Classification Society. Any remaining recommendations/conditions of class with their due dates shall be clearly stated in the following documents:

Ship's File, if available on board;

List Survey's Status (Form 6.3.51-1).

**6.6.1.6** Within one month since the completion of survey, the remaining Classification Society shall notify the withdrawing Classification Society about the measures (with dates and locations specified) taken in order to fulfil every outstanding recommendation/condition of class put forward in respect of the ship involved, as the losing Classification Society informed the Shipowner. Form G (see Annex 21) with Parts A and B duly completed shall be used for notification. Attached to the copy submitted to the withdrawing Society shall be a list of dates, locations and measures taken to fulfil every outstanding recommendation/condition of class, as the losing Society informed the Shipowner. If the withdrawing Society does not notify about any overdue provisions, this Form together with Parts A and B duly completed shall be submitted to the losing Society and to the Class Transfer Database within a month since submitting Part A of Form L.

Any additional information regarding outstanding recommendations/conditions of class received from the losing Classification Society in accordance with 6.5.2.3 shall be dealt with as specified by 6.5.1.4 and 6.5.1.5, as applicable. When this additional information is received, any recommendations/conditions of class which are overdue shall be dealt with by the withdrawing Classification Society at the first port of call where surveys can be carried out depending on the ship's age. If this is not accomplished, the Classification Certificate shall be suspended immediately unless the Shipowner agrees to proceed directly, interrupting his commercial voyage, to a suitable port where any overdue recommendations/conditions of class of the withdrawing Classification Society shall be dealt with, and notifications on Form G (see Annex 21) with Part B-1 duly completed shall be submitted to the withdrawing Society within a month after completing the survey.

- **6.6.1.7** In cases where the withdrawing Classification Society has reported on the recommendations/conditions of class, the due dates of which have not been expired yet, the remaining Classification Society shall, within one month from receipt of the notification, referred to in 6.5.1.1, submit to the withdrawing Classification Society an itemized list of dates, locations and actions taken or to be taken to satisfy each recommendation/condition of class. Report Form G with Parts A and B duly completed shall be used.
- **6.6.1.8** The reporting by the remaining Classification Society to the losing Classification Society shall be done in accordance with the "Harmonisation of Reporting" Form (see Annex 14).
- **6.6.1.9** To ensure mutual exchange of information on ships which withdraw double class for the purpose to be in a single class, and on the List of Survey's Status of such ships, the remaining Classification Society shall, on completion of the procedure of transferring ship into a single class, submit Form G with Parts A, B and C duly completed to the Class Transfer Database and to the losing Classification Society.
- **6.6.1.10** The remaining Society shall carry out and document the review of class survey records of the withdrawing Society during the period of double class arrangement, by an authorised person considering the items specified in Annex 29.

#### 6.6.2 Obligations of the withdrawing Classification Society.

- **6.6.2.1** If a Shipowner advises the withdrawing Classification Society in writing of his intention to withdraw its class, the losing Classification Society shall immediately notify the Shipowner of any overdue surveys, unfulfilled requirements together with any outstanding accounts for the surveys carried out and inform the remaining Classification Society of the Shipowner's intention. Form L (see Annex 20) shall be used for this purpose.
  - **6.6.2.2** The withdrawing Classification Society:
- .1 within two working days of receipt at its Head Office or at one of its Designated Representations of a written request from the Shipowner for withdrawal of its class, shall fax to the remaining Classification Society

the latest class details in its possession, including a full list of overdue surveys, recommendations/conditions of class with respective dates specified for the ship concerned. The most recent Condition Evaluation Reports/ Executive Hull Summary Reports and Survey Planning Document for the commenced special survey for ships under (ESP) mark in their class notation, if any, during the double class period shall be also provided. In cases where the Class status is received in a language not readily understood by the remaining Classification Society or contains vague and unclear wording, the withdrawing Classification Society shall provide additional detailed information in English to the retaining Classification Society on the request of the latter. The withdrawing Classification Society is obliged to advise the remaining Classification Society of possible further recommendations/conditions of class arising from surveys, which, as the withdrawing Classification Society knows, have been carried out but reports for which have not yet been received. Form L (see Annex 20) shall be used by the withdrawing Classification Society for notifications of the Class Status. Details may be amplified, if necessary, in the accompanying documents;

- .2 is obliged to make available, within one month of receipt of the request, referred to in 6.5.2.2.1, all class survey records to the remaining Classification Society for record review and relevant reporting for the double class period, within the scope of such information in the possession of the losing Classification Society to enable the gaining Society to retain the Vessel's Records as outlined in Annex 29, in compliance with 6.6.1.10;
- .3 alternatively to the requirements of 6.5.2.2.2, the withdrawing Classification Society is obliged to submit, within one month of receipt of the request, referred to in 6.5.2.2.1, a copy of the ship's file together with records to the remaining Classification Society on its request.
- **6.6.2.3** The withdrawing Classification Society has at its disposal one month from issuance of its List of Survey's Status to the remaining Classification Society as per 6.5.2.2, for forwarding to the remaining Classification Society the additional information concerning outstanding surveys, recommendations/conditions of class put forward during surveys performed in close proximate to the date of written Shipowner's request for class withdrawal, which were not included into the mentioned List of Survey's Status submitted to the Shipowner.
- **6.6.2.4** For ships of 15 years of age and over, the losing Classification Society, within one month from completion of overdue survey and outstanding recommendations/conditions of class put forward by the withdrawing Classification Society shall confirm to the remaining Classification Society the dates, locations and actions taken to complete each overdue survey and each outstanding recommendation/condition of class. Form L with Part A duly completed shall be used. The reporting of the withdrawing Classification Society to the remaining Classification Society shall be done in accordance with the "Harmonisation of Reporting" Form (see Annex 14).
- **6.6.2.5** To ensure mutual exchange of information on ships transfering class and on the List of Survey's Status of such ships, the withdrawing Classification Society shall, on completion of the class withdrawal procedure, dispatch Form L with Parts A and B duly completed to the Class Transfer Database and to the retaining Classification Society.
- **6.6.2.6** If the withdrawing Classification Society, upon receipt of information from the remaining Classification Society, pertaining to the class withdrawal matters, has clear grounds for believing that the remaining Classification Society did not fulfil its obligations, as specified in 6.5.1, the withdrawing Classification Society shall notify the remaining Classification Society of its concerns and make an attempt to settle any differences any differences.

## 6.7 WITHDRAWING CLASS OF ONE CLASSIFICATION SOCIETY FROM A DUAL CLASS ARRANGEMENT

**6.7.1** In case of dual classed ships, the Head Office of the withdrawing Classification Society, in accordance with the agreement between these two Classification Societies, shall inform the remaining Classification Society that the class concerned is withdrawn, using the first Part and Part B of Form L (see Annex 20).

#### **6.8 OTHER REQUIREMENTS**

**6.8.1** Any differences which cannot be settled between two Classification Societies unofficially shall be settled in compliance with Annex 4 "IACS Procedure for Handling a Complaint", Vol.3, IACS Procedures.

Commitments of the withdrawing Society and the remaining Society remain valid in case of suspension of class and within 6 months after withdrawal of class.

#### 7 PROCEDURE FOR REVIEW AND RECORDING OF EMERGENCY OCCURRENCES

#### 7.1 SCOPE OF APPLICATION

**7.1.1** The provisions of the Section shall apply to the ships with the valid RS class.

#### 7.2 DEFINITIONS

**7.2.1** In addition to the definitions given in 1.1, Part I "Classification" of the Rules for Construction and Section 2, Part I "General Provisions" of the Rules the following definitions have been introduced in the Section:

Emergency occurrence means an accident or incident occurred to ship.

Accident means a serious or very serious marine casualty, which effect the conditions of class retaining for the ship.

Incident means a failure or damage of an item of technical supervision of the RS Nomenclature that not directly effect the conditions of class retaining for the ship.

Seaworthiness of ship includes stability, buoyancy, floodability, steerability, seaworthiness.

Very Serious Marine Casualty means an accident involving the total loss or presumed loss of the ship or such ship damage following which the shipowner will assume it unfeasible to renew the ship.

Review of documents related to emergency occurrences means the process of studying documents related to the accidents including if necessary collection of additional information, document review, and if applicable, development of recommendations (actions) aimed at prevention of similar cases.

Serious Marine Casualty means an accident which may not be classified as a very serious casualty and includes (but not limited to) fire, explosion, collision, contact, grounding, etc. which resulted in the damage of the item of technical supervision of the RS Nomenclature and/or loss of any seaworthiness features of the ship and/or break of the ship watertightness and/or resulted in partial or complete failure of power plant and/or propulsion plant and/or the necessity of towing of the self-propelled ship.

Ship means a self-propelled or non-self-propelled floating facility, including MODU and FOP.

#### 7.3 CLASSIFICATION OF EMERGENCY OCCURRENCES AND ACCIDENTS

- **7.3.1** Emergency occurrence shall be classified as follows:
- an accident;
- an incident.
- 7.3.2 Depending on the consequences an accident shall include the following:
- a very serious casualty;
- a serious casualty.
- 7.3.3 According to their type the accidents may include the following:
- a loss or wreck of a ship;
- an inflaming in accommodation, working and cargo spaces of ships, explosions.
- **7.3.4** The causes of the accident shall be specified by the accident investigating body. To discover the accident causes is beyond the RS competence.

#### 7.4 REVIEW AND RECORDING OF EMERGENCY OCCURRENCES

7.4.1 All emergency occurrences of the RS-classed ships shall be subject to review and recording.

**7.4.2** Initial information regarding the emergency occurrences on board the ships may be obtained by RS from:

the RS Branch Offices for in-service supervision;

shipowners and their representatives (ship's masters, agents, operators, insurance companies, etc.);

State Maritime Rescue Coordination Center (SMRCC), etc.;

the Flag State MA;

mass media and available Internet resources.

**7.4.3** Upon receipt of the information related to the emergency occurrence and its initial analysis (refer to 7.5.6), the RS Branch Office shall issue a Notification of the emergency occurrence, where, apart from the classification and description of the -emergency occurrence, the recommendation by the RS Branch Office is given regarding the retention/suspension of the ship's class. The Notification of the emergency occurrence, as well as other information related to the emergency occurrence, shall be immediately delivered to RHO and the RS Branch Office for in-service supervision (where applicable) via the RS "Thesis" System. When the recommendation on suspension of the ship's class is available, the suspension procedure shall be performed by the RS Branch Office for in-service supervision with the notification of the shipowner and the Flag State MA in compliance with Section 4. the shipowner shall be notified on the necessity to submit the ship for the occasional survey due to the emergency occurrence.

**7.4.4** When the initial information related to the emergency occurrence is received directly by RHO, following the review thereof RHO shall send the information to the RS Branch Office for in-service supervision and/or to the RS Branch Office where the emergency occurrence has taken place (when the ship is registered by RHO) for issuing the Notification of the emergency occurrence.

The RS Branch Office for in-service supervision shall notify the shipowner on the necessity to submit the ship for the occasional survey due to the emergency occurrence and inform on suspension of the ship's class (where applicable), in this case the Flag State MA shall be notified as well) indicating the reason thereof.

#### 7.5 ANALYSIS OF ACCIDENTS

- **7.5.1** All the emergency occurrences shall be analyzed.
- **7.5.2** The accident shall be reviewed with due regard to the RS rules and other normative documents being currently in force at the moment of manufacturing of the emergency item.
  - **7.5.3** The accident is considered being studied when related to:

deviation from the project, approved documentation, equivalents made during the construction or repair:

lack or inadequacy of the RS rules requirements;

constructive defects;

defects of construction, manufacture, repair.

**7.5.4** Collection of information related to the emergency occurrence and analysis thereof consists of the following stages: initial, on board the ships and a final one.

7.5.5 The initial stage.

Upon receipt of the information on the emergency occurrence the RS Branch Office shall preliminary determine the type of the emergency occurrence: accident (very serious casualty, serious casualty) or incident. Where necessary, the RS Branch Office for in-service supervision shall contact the shipowner to clarify/check the information. The statement on the class status shall be made based on the information on damages obtained by the ship, the possibility for performing the occasional survey and familiarizing with the survey status. When the shipowner denies the emergency occurrence, following the receipt of the RS

notification on the emergency occurrence, the shipowner shall immediately inform RS in the written form attaching the supporting documents. The final decision on the acknowledgment of the emergency occurrence shall be made by RS.

**7.5.6** During the survey on board the ship, the Surveyor shall analyze the influence of the emergency occurrence on the compliance of the items of technical supervision on the ship with the applicable requirements of the RS rules, consider the materials and the circumstances of the emergency occurrence, check the documents issued by RS.

It is not within the competence of the Surveyor to identify technical reasons, circumstances and persons responsible for the emergency occurrence.

During analysis of the emergency occurrence on board the ship, the Surveyor shall, where necessary, examine the ship's logs and engine logs, documents on technical maintenance of ship's equipment, ship's manuals, crew reports related to the emergency occurrence, analyses results (oil, fuel, water, etc.), data on the ship's service conditions, information of the ships voyage data recorder, etc.

7.5.7 The final stage of the analysis of the emergency occurrence shall be carried out in RHO, based on the survey results in order to improve the reliability of the item of technical supervision by enhancing the ways of supervision, extension of the scope of supervision, introduction, where necessary, the relevant amendments or additions to the RS normative documents. When, upon the analysis of the emergency occurrence, the RS technical supervision in industry, shipbuilding or during the design work has to be improved, as well as amending of the RS normative documents (the RS rules, guidelines, procedures, etc.) the development shall be made by the relevant RHO department responsible for this matter. Where necessary, based on the RHO decision, any RS Branch Office may be engaged in the analysis of the emergency occurrence.

**7.5.8** Emergency occurrences, related to the human factor (violation of the rules of ship's navigation, COLREGs, operating and maintenance rules, service regulations on board the ships, pollution of environment, abandonment of ship by the crew, etc.) shall also be considered by the Register. Where in the course of investigation of emergency occurrence it is found out that it is associated with deviation from the RS rules or lack of the rules' requirements or there are many similar emergency occurrences either, the RS Branch Offices shall undertake preventive actions.

**7.5.9** Where it is necessary to identify the causes of an accident, the RS Branch Office performing the survey shall require from the shipowner research works, checks, tests or special technical calculations to identify them by the competent bodies.

### 7.6 SURVEY OF SHIP AND DETERMINATION OF SHIP'S CLASS STATUS AFTER EMERGENCY OCCURRENCE

- **7.6.1** The shipowner shall immediately inform RS of every emergency occurrence with the ship.
- **7.6.2** Ship's class shall be automatically suspended from the moment of an accident regardless the availability of the information thereof in RS.
- **7.6.3** Following every emergency occurrence, the ship shall be submitted for the occasional survey by the shipowner. The survey of the ship shall be carried out in the port where the emergency occurrence has taken place or in the first agreed port of call. When the emergency occurrence takes place at sea, the results of the emergency repair or removal of the propeller fouling that enable to restore the seaworthiness of the ship, shall be documented for submitting to RS during the survey of the ship.
- **7.6.4** Survey of a ship due to the emergency occurrence shall finally determine, whether the emergency occurrence is an accident or an incident, specify the nature and scope of damages and agree the date of compliance with the RS requirements on elimination of the emergency occurrence consequences (in case of class retaining) and/or the conditions of further operation, determine the possibility and conditions of ship's class retaining.
- **7.6.5** When based on the results of the occasional survey it is revealed that the emergency occurrence is classified as an incident (i.e., the failure or damage of the items of technical supervision have no direct

effect on the class retaining conditions), the ship's class shall be reinstated from the moment of such an emergency occurrence.

- **7.6.6** In case of a very serious casualty, the ship's class and the validity of the Classification Certificate shall be immediately suspended from the moment of the accident.
- **7.6.7** In case of a serious casualty, the ship's class may not be suspended / but be retained, when the ship is in the port and, prior to ship departure, prompt and complete repair of damages sustained by the item of technical supervision is carried out under the RS supervision.
- **7.6.8** In case of a serious casualty and lack of conditions for complete repair to eliminate the accident consequences in the port, the ship's class may be retained, when a temporary repair is made (patching, reinforcements, etc.) under the RS technical supervision and, where necessary, the additional operational restrictions are imposed to ensure safe passage to the RHO-agreed port where the complete repair shall be performed.
- **7.6.9** When, in case of the emergency occurrence, due to force majeure circumstances beyond the shipowner or the Register control, the ship is not in the port (is at sea) or is in the port where an unforseen inability of the RS Surveyor to attend the ship occurs, than, in case of a shipowner's request, RS may allow the ship with a valid class to move to the nearest agreed port of call, where the ship will be submitted for the survey due to the emergency occurrence (refer to 4.2.7.2). RHO may make a decision to provide such an opportunity based on the analysis of the submitted documented information that may include (but not limited to) the MA Flag State permission to continue the voyage, damage stability calculation, calculation of residual structural integrity to confirm the safe operation of ship made by the shipowner or the shipowner's representative or by the company responsible for the safety management, assessment of risks of the forthcoming voyage in compliance with the established safety management procedures (risk identification methods and sequence analysis in compliance with ISO 31010 or national standards, IACS Recommendation No. 127, as applicable), compliance of conformity with the requirements maintained by the port authorities, diving inspection report, Master's statement on the possibility of safe operation of the ship up to the agreed port, etc., that enable not to suspend the ship's class or reinstate it after the automatic suspension (refer to 4.1.3.4). In this case, the operation restrictions may be imposed.

#### 7.7 ISSUE OF DOCUMENTS RELATED TO EMERGENCY OCCURRENCE

- **7.7.1** The RS Branch Office performing the survey of the ship in connection with the emergency occurrence shall draw the requirements for compliance of the items of technical supervision with the applicable requirements of the RS rules.
  - 7.7.2 Results of the survey in connection with the emergency occurrence shall be issued as follows:
- .1 when it is revealed by the survey that the emergency occurrence is an accident, the results of the occasional survey shall be documented by the Report on Occasional Survey of the Ship in connection with an Accident (Form 6.3.32) to be issued in case of any accidents regardless the accident parameters, including explosion and fire. When, by the moment of the occasional survey, the repair work is not commenced or completed, a copy of the completed Accident Report (para 7 of the Accident Report shall be incomplete, refer to 7.7.5) shall be immediately sent to the RS Branch Office for in-service supervision and to RHO. The requirements of the Report shall be drawn indicating the due date / date of completion. Photographs and the documents (diagrams, extracts from ship's log book and the engine log book, ship's technical reports and laboratory conclusions on strength characteristics of materials, and/or causes of failures, etc.) allowing to perform the accident analysis shall be attached to the Accident Report. Where the information received by the Surveyor from the ship's administration is used during the Report issuing, the reference to the source thereof is mandatory;
- .2 when it is revealed by the survey that the emergency occurrence is an incident the results of the survey shall be documented by the Report on Occasional Survey of the Ship in Connection with an Accident (Form 6.3.32) or Report (Form 6.3.10), where the scope of the repair shall be indicated. The ship's class shall not be suspended (or it rather shall be reinstated upon the automatic suspension, refer to 4.1.3.4);

- .3 local explosions, such as an explosions in boiler furnaces, engine crankcases, tanks (if they have not resulted in a fire) are considered as accidents with boilers, engines, etc.
  - 7.7.3 All the materials on the emergency occurrences are processed as the priority materials.
- **7.7.4** Where several ships are involved in the emergency occurrence (contact, collision, etc.), an Accident Reports shall be drawn up for every ship.
- 7.7.5 Fulfillment (partial or full) of the Accident Report requirements shall be documented by a Report on Survey of the Ship (Form 6.3.10), therewith, in the ship's copy of the Accident Report (Form 6.3.32) an entry shall be made with the reference to the Report (Form 6.3.10). The Reports on Survey of the ship with the information of the fulfillment of the Accident Report requirements shall be immediately forwarded to RHO.

#### 7.8 RS PARTICIPATION IN THE ACCIDENT INVESTIGATION COMMITTEES

- **7.8.1** The RS representatives may participate in the accident investigation committee carried out by the Flag State MA body and/or national Administration, in the territorial or inland waters where the accident took place. The general procedure for the accident investigation and classification shall be determined by the Flag State MA and shipowner normative documents. The decision regarding the participation of the RS experts in such committees shall be made by RHO.
- **7.8.2** In case of a request from the Flag State MA performing the accident investigation, the RS documents shall be submitted by RHO.
- **7.8.3** The draft conclusion on the accident investigation, prepared by the Commission shall be considered by the RS Branch Office participated in the investigation.

In the absence of remarks, the draft conclusion shall be forwarded by the RS Branch Office to the RHO for agreement.

If RS Branch Office/RHO has remarks to the draft conclusion, the remarks shall be forwarded by the RS Branch Office to the executor of the draft.

After RHO's agreement, the conclusion is to be signed by the RS surveyor, participated in the Commission work.

#### **8 PASSAGES AND TOWING**

#### 8.1 DEFINITIONS AND EXPLANATIONS

**8.1.1** In addition to the definitions given in Section 2, Part I "General Provisions" of the Rules, the following definitions have been adopted in this Section:

To wing means ship's transportation by tugs.

Bay is a small part of the sea, the gulf, isolated from the open water with parts of the land (ledges shores, cliffs, nearby islands and artificial structures) and protected by them from the waves and wind and located within two adjacent areas of marine Ports.

Ship conversion is a process including combination of organizational and technical measures on ship's preparation for temporary and safe ship's storage afloat and for its passage with provisions for outer envelope water tightness.

Passage is the term defining one of the following types of temporary ship's operation for cases specified in 8.2.3.

- .1 a single voyage of a ship under its own propulsion or in tow outside prescribed area of navigation/operation and/or outside prescribed seasonal restrictions;
- .2 a single voyage of a ship in tow without the RS class as well as of a ship that has lost the Register class irrespective of operational restrictions previously available in the RS class;
- .3 a single voyage of a ship under its own propulsion or in tow within prescribed area of navigation /operation and/or outside the prescribed seasonal restrictions for ship which technical condition does not meet the RS Rules requirements as regards to class notation and permanent restrictions specified in the Classification certificate.

For berth-connected and non-self-propelled ships, including MODU и FOP any towing which is not standard is considered a passage.

Ship is self-propelled or non-self-propelled floating structure, including MODU and FOP.

Technical Committee of the Register (TC) is a permanent executive body designed to develop uniform technological policy to the benefit of the Register, to provide adequate interaction efficiency between RS and other organizations, to promote the interaction of the RS Branch offices at the common issues dealing.

Ships' transportation (regardless of the available valid RS Class) onboard another ship (for example, on deck a carrying ship) is not a passage and is not subject to review by the Register.

Prescribed area of navigation/operation means an area of navigation and operation specified prior to its passage and indicated in the Classification Certificate.

Prescribed seasonal restrictions are ship's seasonal operational restrictions specified prior to its passage and indicated in the Classification Certificate.

Standard towing is a towing, which is as standard operation prescribed by ship's destination or operational conditions at observance of all prescribed conditions, and which is not considered a passage.

#### 8.2 GENERAL

**8.2.1** The provisions of the Section shall apply to the following ships: ships having the current RS class; ships having lost the RS class by any reason; ships with no RS class; laid-up ships and ships in conservation;

small craft, pleasure craft and sport sailing vessels classified by RS with no Classification Certificate (under the Merchant Shipping Code of the Russian Federation). Such ships shall be considered as having no RS class.

**8.2.2** The provisions of the Section do not apply:

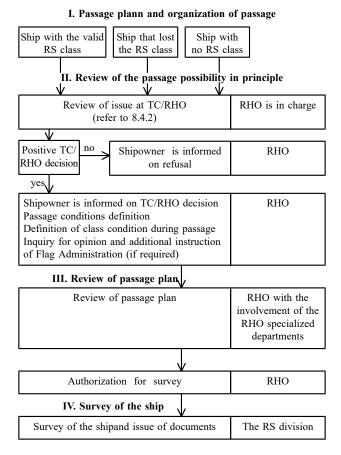
to marine operations specified in 2.1, Part I "General Requirements" of the Rules for Planning and Execution of Marine Operations;

during ship's operation (including short-term) without restrictions prescribed pursuant to provisions of international conventions (e.g., ship's voyage outside the prescribed "special area" in compliance with MARPOL 73/78 on and outside the prescribed "area of navigation" as per GMDSS).

Such cases are reviewed by Flag State MA in compliance with the procedure for exemption.

during the passages ships with passengers on board. Such passages are not considered by the Register.

- **8.2.3** Register reviews the passage of ships, planned for the following cases:
- .1 passage to the survey location or to ship repairing yard (including ships after an accident), if the port is not fitted with necessary conditions for the prescribed survey and/or execution of required repair (dry-docking facilities, repair facilities, spares etc.);
  - .2 passage after construction for sailing to the area of operation;
  - .3 passage for sailing to the new area of operation (basin);
  - .4 passage to scrapping and recycling place.
  - **8.2.4** Passage procedure flow-chart:



- **8.2.5** Summarized information on the RS class retaining possibility during the passage and passage plan development depending on passage type and the passage factor is represented in Table 8.2.5.
  - **8.2.6** Passages of ships flying the RF flag.
- **8.2.6.1** When reviewing the passages of ships flying the RF flag one shall be also guided by the following:

Table 8.2.5

Passage type Passage factor		Passage of a ship with no RS Class or that has lost the RS class (only in tow) <sup>5</sup>	Passage of a ship within the prescribed restrictions, the technical condition of which does not comply with the Rules <sup>2, 3, 4</sup>
Passage to the survey location; if the port is not provided with conditions necessary for the prescribed survey	Class — Yes Plan — Yes	Class — No Plan — Yes	Class <sup>6</sup> Plan — Yes
Passage to the ship repairing yard (including ships after an accident if the port is not provided with conditions necessary for the necessary repair	Class <sup>6</sup> Plan — Yes	Class — No Plan — Yes	Class <sup>6</sup> Plan — Yes
Passage after construction for sailing to the area of operation	Class — Yes Plan — Yes	Class — No Plan — Yes	Not applicable
Passage for sailing to the new area of operation (basin)	Class — Yes Plan — Yes	Class — No Plan — Yes	Not applicable
Passage to scrapping and recycling place	Class — Yes Plan — Yes	Class — No Plan — Yes	Class — refer to Footnote 2 Plan — Yes

Passage of ships flying the RF Flag, outside the prescribed area of navigation/operation and/or outside prescribed seasonal restrictions shall be realized in tow in converted conditions and without people on board.

Conditions of passage are established in the passage plan (refer to 8.5).

Passage in tow may be planned in all applicable cases.

The issues of passage of laid-up ships and ships in conservation shall be reviewed by RHO in compliance with 8.9.

<sup>4</sup> For the passage of a ship during the survey (class status code 16), the appropriate provisions of 4.2.9, Part II "Carrying out classification surveys of ships" shall be additionally applied.

If a ship has no valid RS class, passage issue is reviewed by Register provided it is planned in tow in converted conditions and

passage of ships flying the RF flag outside the prescribed area of navigation/operation and/or the prescribed seasonal restrictions is considered by Register, only if such passages are planned in tow in converted conditions and with no people on board.

Passages of ships flying the RF flag not specified in thy Section shall be considered by the Register only upon shipowner's application to Department of State Policy for Marine and River Transport of the RF Ministry of Transport.

- 8.2.7 Passages of ships flying the flag other than the Russian Federation flag under its own propulsion shall be considered by the Register as self-propelled passage of ships flying non-RF Flags outside the prescribed area of navigation and/or outside the prescribed restrictions, only if the ship has the valid RS class.
- 8.2.8 Register considers the issues on passage of ships without valid RS class (previously had but lost the RS class) and ships without RS class, only if such passages are planned for realization by towing in converted conditions and without people on board.
- 8.2.9 Ship's passage in ice condition shall be reviewed by RHO with due regard to the ice class according to Rules for the Construction.
- **8.2.10** When ships are towed to scrapping and disposal places, the requirements of this Section shall apply in such an extent as it is feasible and reasonable. Reasonability degree shall be worked out through by RHO in each case and be subject to special consideration and approval by TC.

The passage issues for the ship in lay up to scrapping and disposal places are subject to the RHO consideration in compliance with the provisions of 8.9.8 and 8.9.9.

**8.2.11** Standard ship's towing, being standard activity in its operation, is not passage at observance of all prescribed plan conditions of such towing (see 8.8).

If forthcoming standard passage assumes violation of any prescribed plan condition, then such towing should be considered as passage and all relevant requirements of this section are applicable thereto.

**8.2.12** In all cases, before passage starts the Shipowner shall present a ship for survey for its actual technical condition appraisal and/or checking of observance of measures prescribed by passage plan pursuant to 8.6.

The issue on retainment of the RS class during passage within the prescribed operational restrictions of ship, technical condition of which does not meet the RS Rules requirements, shall be considered by TC. In all applicable cases to retain the RS class for passage period, permanent/temporary repair or additional operational restrictions posing may be required.

#### 8.3 PASSAGE PLANNING AND ORGANIZATION

- **8.3.1** Passage planning and organization issuesare not related to Register competence and shall be resolved by Shipowner of company responsible for ship's safe passage.
- **8.3.2** When preparing activities connected to ship's passage, the Shipowner has the right to apply directly to RHO or any Register Division, which shall forward his application to RHO.
- **8.3.3** Together with passage application, the Shipowner should submit the following information for consideration by Register:

selection of the passage type passage under own steam, passage in tow, within a train being escorted by other ship, with cargo on board or ballasted, etc.);

selection of the season, route and places of refuge;

provisions for timely weather forecasts en-route;

ship's manning during passage;

other information depending on passage particulars.

The Shipowner should also submit the following information to Register:

confirmation of authorities for persons responsible for passage planning and organization from Shipowner's party;

title and contact data of organization, which takes responsibility on safe ship's passage;;

title and contact data of organization, which will develop passage plan.

- **8.3.4** If a ship passage is planned between two different marine basins connected by inland waterways, then the issue shall be considered with regard to 8.5.10.
- **8.3.5** When planning and organizing passage by towing, it is advisable to use Annex 46 "Guidelines for safety of towed ships and other floating objects, including rigs, facilities and platforms in the sea "implemented by IMO resolution A.765(18) approved on 04.11.1993, Annex 28 "Guidelines on safe ocean towing" recommended by IMO Circular Letter MSC/Circ.884 dated. 21.12.1998, as well as Annex 47 "Recommendations to ensure seaworthiness properties and posing of restrictions due to weather conditions during passages" of the Annexes to the Guidelines on Technical Supervision of Ships in Service.

#### 8.4 REVIEW OF PASSAGES BY REGISTER

**8.4.1** RHO is involved in passage issues review in the Register.

Review of the passage plans within the area of one port or bay is in the competence of the RS Branch Office responsible for the region where the ship is located.

- **8.4.2** At shipowners' applications RHO shall review the acquired and available information and consider the passage issue independently or in case of a passage of the ships under the valid RS class with people on board brings discussion on ship's passage to the closest TC meeting. The review of the closest passages the issues falls under the competence of the RHO Ships in Service Division (without bringing it to the closest TC meeting):
- .1 passage of ships under the valid RS class outside the prescribed area of navigation or seasonal restrictions if they are planned in tow in converted conditions and with no people on board;
- .2 passage of ships with no RS class (war ships, partially constructed ships, ships' members, ships with the ACS class, ships with no class including those with suspended or withdrawn RS class), if they are planned in tow in converted conditions and with no people on board;
  - .3 passage issues for the ship in lay-up and in conservation.
- **8.4.3** RHO within 3 working days after TC or the RHO Locations have taken the decision, shall inform the Shipowner and the involved RS Branch Offices about the taken decision.
- **8.4.4** In the case of positive decision on ship's passage, shipowner and the involved RS Branch Offices/RHO Locations are also informed on the passage conditions, ship's survey scope (refer to 8.6) and ship's class condition within passage (refer to 8.2.5).

- **8.4.5** If conventional certificates available on ship are issued by Register, then, RHO informs Flag State MA (excluding RF Flag State MA) on Shipowner's application due to planned passage, informs Register position on this matter pursuant to 8.4.4, as well as asks for Flag State MA viewpoint on ship's passage and additional instructions on issuance of conventional certificates, including withdrawals, if necessary.
- **8.4.6** Applications to know viewpoint of the RF Ministry of Transport is not needed for ships under the RF Flag in cases indicated in Table 8.2.5.

In passages not indicated in Table 8.2.5 (see 8.2.7), Register should submit all relevant information to enable the Ministry of Transport to consider such passage.

**8.4.7** Ship's surveillance is assigned to RS division pursuant to procedures established by Register. Instruction to survey ship under non-Russian Flag is forwarded only upon getting Flag State MA viewpoint and instructions, which are obligatory for execution.

For ships bearing the RF Flag and indicated in Table 8.2.5, instruction to survey ship is sent without application to the RF Ministry of Transport.

In the case of passages not indicated in Table 8.2.5 (refer to 8.2.7), instruction to survey ship is sent only upon getting the instructions by the RF Ministry of Transport, which are obligatory for execution.

**8.4.8** The RS Branch Offices/RHO Locations shall not undertake any actions connected to the ships passages (passage plans review, ship's survey, etc.) until a positive decision on passage has been taken and besides the RS Branch Offices/RHO Locations have got the relevant instructions.

#### 8.5 PASSAGE PLAN DEVELOPMENT AND APPROVAL

- **8.5.1** For all passage cases, the Shipowner should develop passage plan pursuant to 8.5.5 provisions and submit this for review of RHO.
- **8.5.2** Ships' passage plan shall be submitted with signature of the Shipowner or organization responsible for safe passage in the case of involvement by the Owner.
- **8.5.3** The Register reviews ships' passage plan within the frame of its competence specified in Construction Rules, namely, as regards to hull strength, stability, equipment and outfit, fire protection, mechanical installation, systems, electric equipment and other parts as regulated by the RS rules and may relate to safety of planned passage.
  - **8.5.4** RHO arranges for ship's plan review.

If necessary, the specialized RHO divisions are involved in review.

In justified cases, passage plan's review may be assigned to The RS division having necessary resources.

All remarks detected within review of documentation included into passage plan, shall be eliminated before passage plan approval by the Register.

- **8.5.5** The passage plan depending on planned passage conditions and ship's condition shall represent the set of the below mentioned documents (in any case, for ships in tow without people on board, passage plan shall contain documents specified in 8.5.5.1, 8.5.5.2, 8.5.5.5.1 to 8.5.5.5.3 and 8.5.5.7):
  - .1 explanatory note (for all passage plans) should contain (if applicable):

information on planned passage pursuant to 8.3.3;

passage area and conditions, including seasonal wind and sea state and ice conditions prevailing in the area of planned passage;

passage route diagrams with indication of all refuge places and distances between them;

organizational and technical measures to provide safe passage and eliminate environment pollution including, if necessary, description and diagrams of ship's conversion, installation of seaworthiness increasing structures (e.g., rakes, deckhouse protection), etc;

.2 towing line diagram and calculation (for passage by towing method) — method set forth in Appendix 9 is recommended for application;

- .3 anchor gear and towing gear calculations (for floating docks passage) methods set forth in Appendices 7 and 8 are recommended for application;
  - .4 evidences of possible passage without anchors (for passage of ships without standard anchor gear);
  - .5 evidences of enough hull strength and stability during planned passage shall include:
- .5.1 restrictions on permissible sea state, wind force and distance from refuge, etc. during planned passages;

meantime, permissible values of wave height and wind force shall not exceed the restrictions assigned to the ship of prescribed area of navigation;

- .5.2 calculations considering actual loads, freeboard and other factors prescribed by the RS rules for planned passage area;
  - .5.3 hull reinforcement schematic (if applicable);
- .5.4 detailed calculations, necessary drawings, diagrams, ballasting and/or loading schematic, etc (as per the additional Register requirement);
- .6 instructions for the Master of ship towed with crew on board in self-propelled mode or its towing shall contain (if applicable):

organizational measures;

prescribed weather restrictions;

instructions of ship's ballasting and/or loading;

instructions on ship's store consumption;

instructions on ship's damage control in emergencies;

instructions on environment pollution prevention;

justified recommendations on selecting the course and speed on waves, etc.

.7 instructions for the Master of towing vessel (for passage by towing method) shall contain (if applicable):

organizational measures;

prescribed weather restrictions;

instructions of ship's ballasting and/or loading of towed ship;

instructions on towed ship's damage control in emergencies;

instructions on environment pollution prevention;

justified recommendations on selecting the course and speed on waves, etc.

**8.5.6** The passage plan shall be submitted as a single booklet to the Register for review. Relocation project within Register competence pursuant to 8.5.3, its title pages are stamped with the seal "APPROVED".

Register takes into account documentation included into passage plan but going outside the frames of Register competence pursuant to 8.5.3, when reviewing the whole passage plan. In case such information is submitted as a single document, relocation project it is stamped with the seal "FOR REFERENCE (INFORMATION)".

**8.5.7** The passage plan APPROVAL shall be accompanied by the Letter of Conclusion being an integral part of the approved passage plan.

Register's conclusion on passage plan review besides the prescribed information shall specify the following:

- .1 passage plan shall have a note on documents approval within the frame of Register's competence specified in Construction Rules (refer to 8.5.3);
  - .2 when conducting passage, all conditions specified in reviewed documentation, shall be met;
- .3 in the case of passage (or any of its steps specified by passage plan) without submittal to surveillance, current passage plan approval automatically becomes void, and the classification is automatically suspended (if available);
- .4 If a ship is towed with valid RS class, then upon arrival to final location, the ship should be submitted for occasional survey to maintain the RS class.
  - .5 Letter of Conclusion is an integral part of the approved passage plan.

Appendix 1 to this Chapter includes typical form of conclusion on passage plan reviewing results.

- **8.5.8** When developing passage plan by towing method, there shall be used Appendix 46 "Guidelines for safety of towed ships and other floating objects, including rigs, facilities and platforms in the sea" implemented by IMO Resolution A.765(18) approved on 04.11.1993, Annex 28 "Guidelines on safe ocean towing" recommended by IMO Circular Letter SC/Circ.884 dd. 21.12.1998, as well as Annex 47 "Recommendations to ensure seaworthiness properties and posing of restrictions due to weather conditions during passages" of the Annexes to the Guidelines on Technical Supervision of Ships in Service.
- **8.5.9** Within passage plan development, upon the wish of Shipowner or organization responsible for safe passage, Register can provide an additional surveillance in order to precisely define requirements of ships' preparation to passage, as well as to supervise repair works completeness, if they are stipulated.
- **8.5.10** If passage is planned between two different marine basins connected by inland waterways, then Register review only those parts of passage plan that relate to ocean passage.

In this case one common passage plan of different plans for each passage route can be developed.

**8.5.11** In the case of passage (or any of its steps defined by passage plans) without submittal for surveillance by Register pursuant to 8.2.13 in scope prescribed in 8.6, passage plan approval becomes void automatically.

**APPENDIX** 

### TYPICAL FORM OF LETTER OF CONCLUSION ON THE REVIEW OF PASSAGE PLANNING RESULTS

Head Office of Russian Maritime Register of Shipping (the RS Branch Office) has reviewed passage planning of the following ship:

(identification number of passage planning, name, RS Reg. No., IMO No., Flag);

Documentation is submitted for review by the letter:

(specify details).

Documentation developer:

(specify, if documentation is acquired not from developer).

Passage objective:

(specify pursuant to Table 8.2.5)

Documentation is reviewed for compliance with the following RS rules:

Documentation is reviewed by Register within the frame of its competence as regards to compliance with the rules listed above.

Documentation developed to comply with the requirements of normative and other documents not listed above, are not subject to documentation approval by Register.

Based on documentation review, passage plan is approved and its title pages are stamped with the seal "APPROVED".

When conducting passage all conditions specified in the approved documentation shall be met.

Before conducting passage (or any of its steps specified by the passage plan) each ship shall be submitted to the Register for survey. In the case of passage without submittal to survey, current passage plan approval automatically becomes void, and the classification is automatically suspended (if available).

If a ship is towed with the valid RS class, then upon arrival to final location, the ship shall be submitted for occasional survey to maintain the RS class.

The present Letter of Conclusion is an integral part of the approved passage plan.

### 8.6 EVALUATION OF TECHNICAL CONDITION OF SHIP AND CHECKING OF IMPLEMENTED MEASURES ASSIGNED BEFORE PASSAGE

- **8.6.1** Assessment of ships technical conditions and checking of implemented measures are made by the RS Surveyor within ship's survey before passage based on Shipowner's request and only at RHO instruction presence.
- **8.6.2** Scope of ship's surveillance before passage is assigned by RHO and is brought to attention of all interested parties (see 8.4.4).

Ship's surveillance shall include checking of implementation of conditions and measures assigned by approved passage plan, as well as checking of actual ship's technical condition with due account of provisions of this Chapter.

- **8.6.3** For passage time, ship shall meet the require-ments of the RS rules and the international conventions' provisions in such extent, as is necessary for its safe passage. Conformity level in each case is subject to special consideration by the RHO Ships in Service Department and, if necessary, Flag State MA.
- **8.6.4** Ship under the RF Flag at passage in the RF territorial waters (coastal cruise) should meet all applicable RS rules requirements on equipment and outfitting, load mark, as well as elimination of environment pollution.
- **8.6.5** Technical requirements of this Chapter at passage of ships to be scrapped and disposed are applied within executed or planned removal of shipping equipment, outfitting, mechanical installation, electric and radio equipment.
- **8.6.6** Register-approved passage plan with conclusion (refer to 8.5.7) shall be available to the RS Surveyor on board ship.

If based on surveillance results, it is detected that, considering actual ship's conditions, restrictions and/or conditions specified in passage plan are not enough to provide safe passage, then Shipowner and/or organization responsible for safe passage should either increase the level of ship's technical condition, or coordinate additional restrictions and/or conditions by the Register.

**8.6.7** If passage is planned to be performed between two different marine basins connected with inland waterways, then the ship is subject to surveillance before passage in each marine basin.

Scope of surveillance in each case is defined by the RHO Ships-in-Service Department before its conduction

If pursuant to 8.5.10 common passage plan is not developed and not approved, then RS Surveyor shall have access on board ship to the Register-approved plan for forthcoming part of the passage.

**8.6.8** If technical condition of a ship which previously has had but lost its class, shall be brought into compliance with the RS rules for previously prescribed navigation/operation area and conditions, ship's class for passage can be restored/re-nominated. The class restoration/re-nomination issue in this case shall be considered pursuant to the valid RS procedures.

Ship's class restoration/re-nomination for passage in navigation/operation area and conditions poorer than ship had before class pending/withdrawal, in this case subject to consideration by TC at passage review

If ships class is not restored or re-nominated, then the ship shall be considered as the one that has lost the RS class.

**8.6.9** In-water part of the ship, the surevey term of which is expired or technical supervision of which is suspect shall undergo a dry-dock survey.

In justified cases, RHO can replace dry-dock survey by in-water survey with application of underwater TV pursuant to Appendix 1.

**8.6.10** Ships with significant corrosion may be per-mitted to passage provided positive results of actual ship's hull condition evaluation are represented in compliance with Section 5, Part I "General Provisions" of the Rules.

- **8.6.11** Bottom equipment not used in passage should be closed by standard closings and securely locked and plugged, if closings are absent.
- **8.6.12** Superstructures, deckhouses, and tambours on open deck, which strength does not meet Construction Rules requirements for passage, should be reinforced or protected from wave shocks.
- **8.6.13** On ships with insufficient, due to load line conditions, fore elevation above waterline, as well as on ships with unseaworthy hull formations, rake shall be installed to prevent excess deck flowing in fore end, unless the ships' passage plan justify their absence.
- **8.6.14** All movable structures and ship's equipment (cranes, derricks, dredger frames, etc.) for passage time should be braced by standard fixtures.

Own mass of structure (object) is not considered as fixture replacement.

**8.6.15** Ship's supply with anchors and chains shall be, at least, conform to prescribed area of navigation.

In highly complicated passage conditions, additional anchors and chains fitting may be required.

Anchors shall be securely fixed in hawses or on deck so that they can be released in any time.

On ships without standard anchor gear, anchors and chains fitting may be provided, if passage plan does not justify possibility of their absence (refer to 8.5.5.4).

**8.6.16** Life-saving appliances on ships towed with crew on board shall comply with SOLAS-74 and for a coastal passage — with the Rules.

Diminishing the number of life-saving appliances or replacing lifeboats by liferafts in each case is subject to special consideration by the RHO Ships in Service Department and, if necessary, shall Flag State MA.

- **8.6.17** There shall be provided a possibility of water pump off from compartment by ship's pumps or towing vessel or accompanying vessel's pumps.
- **8.6.18** Machinery, boilers, equipment and outfit, which fixture is not enough for passage in planned area, should be additionally braced.
- **8.6.19** If the passage is carried out in tow (irrespective of the people on board), in addition to the applicable requirements of 8.6.1 8.6.18, conversion shall include the following:
  - .1 propellers shall be stopped;
- .2 ship's fitting with towing and mooring lines for passage shall meet the diagram and calculation (refer to 8.5.5.2);
- .3 dry docks fitting with anchors, anchor chains and towing lines for passage shall meet calculations (refer to 8.5.5.3);
- .4 selection of way for towing line fixation on towed ship relates to competence of the Shipowner or organization responsible for safe passage. Surveyor shall check that measures are undertaken to eliminate hull and ship's equipment damages, as well as damages of towing line itself;
- .5 availability and possibility to use signalling lamps, as well as signalling shapes prescribed by GMDSS and in case of coastal passage by the RS rules, shall be provided in dark time.
- **8.6.20** At passages in tow without people on board, in addition to requirements of 8.6.19, ship's conversion shall include the following:
- .1 watertight and secure closing of openings in hull, superstructures and deckhouses (watertight doors, cargo and other hatches, manholes, portholes, fans, air and sounding pipes). Meantime, a possibility of fast access into ship's compartments, as well as possibility of water level measurement in internal spaces from outside (e.g., from deck) shall be provided;
  - .2 the means of access to towed ship from board of towing ship or from life boat shall be provided;
  - .3 rudders shall be securely fixed in zero position;
  - .4 water tightness of anchor hawse pipes should be provided.
- **8.6.21** If it is planned that ship within passage will make international voyage, it should be surveyed for conformance to applicable requirements of international conventions, as well as additional Flag State MA requirements according to 8.4.5 8.4.7.

When necessary, withdrawal will be documented upon MA instruction.

**8.6.22** In case of towing a ship with the valid RS class, then upon arrival to final location, the ship shall be submitted for occasional survey to retain the RS class.

This provision is not applicable to ships passage to scrapping and disposal location Survey shall be made in scope enough to confirm the fact that ship's technical condition did not impaired from the date of last periodical survey for confirmation/ restoration of the RS class.

In the case of ship's non-submittal to such survey, class suspension and withdrawal procedure shall be applied thereto in specified terms.

- **8.6.23** Regardless of the provisions of the Chapter, the scope of ships' survey with no RS class or those having lost the RS class, towed without people on board shall only include checking of observance of the measures prescribed by the passage plan approved, the ship's conversion included, without evaluation of the actual ship's condition.
- **8.6.24** Ships survey on authorization by another classification society is conducted based on instructions of classification society which granted class to the ship.

If such assignment instructions are absent, they should be additionally requested from RHO and transferred to the RS division which is responsible for ship's survey.

#### 8.7 DOCUMENTATION

- **8.7.1** Ship ready for passage should be submitted for survey pursuant to 8.6 in order to check prescribed measures and activities, as well as technical condition.
- **8.7.2** Ship's survey results before passage, as well as preliminary surveys pursuant to 8.5.9, are documented by ship's survey certificates (Form 6.3.10).
- **8.7.3** Reports on survey shall reflect detailed information on the scope of performed survey with reference to the RHO authorization, on implementation of technical measures prescribed by the approved passage plan and on results of the survey carried out, on the scope and methods of conducted repair and installed reinforcement, etc.

The report on survey shall contain actual evaluation of ship's technical condition as regards to possible ship's safe passage considering restrictions and/or execution of conditions specified in the passage plan approved by the Register.

Final part of the report shall contain recommendations by the RS surveyor on the RS class retaining for passage (refer to 8.2.5) or issuance of Towing Certificate (Form 6.3.40).

In case of towing a ship with a valid class, then the report and survey status shall include requirements on ships' submittal to occasional survey upon ship's passage and submission time frame shall be established in compliance with 8.6.22.

- **8.7.4** If passage is made between different marine basins connected by inland waterways, and ship pursuant to 8.6.7 is subject to surveillance before passage in each marine basin, then RS documents are formalized again based on each survey results.
- **8.7.5** Conformance to the specified RS requirements for ship's passage with the valid RS class is confirmed by classification certificate.

The section "Temporary restrictions and remarks" of certificate is filled-in with inscription on the fact that certificate is valid for concrete passage (with indication of route and time) only at implementation of restrictions and conditions listed here below and indicated in approved passage plan (restrictions and conditions are indicated) "restrictions and remarks" of classification certificate does not contain restrictions and conditions, but makes reference to concrete sections/clauses of approved passage plan prescribing such restrictions and conditions, as well as conclusion letter.

If a ship is towed with valid class by towing method, then only classification certificate is issued for the ship, and towing certificate is not required (Form 6.3.40) in this case.

**8.7.6** Performance of the measures prescribed by the approved passage plan on a ship with no class shall be confirmed by issuance of Towing Certificate (Form 6.3.40) which specify passage route and time, as well as restrictions and conditions specified in the approved passage plan.

- **8.7.7** For a ship which is to make an international voyage during the passage and which is surveyed pursuant to 8.6.21, the set of required conventional certificates considering the Flag State MA instructions shall be issued.
- **8.7.8** For ships surveyed on authorization by another classification society (refer to 8.6.24), the documents shall be formalized and issued in full compliance with the authorization. If necessary instructions are absent in the authorization, they shall be additionally required from the classification society by RHO and transferred to the RS Branch Office which is responsible for ship's survey and issue of the documents.

#### 8.8 STANDARD TOWING

- **8.8.1** Provisions of this Chapter are applicable to ships which destination and operation conditions foresee their transportation by tug. Such ships include non-propelled drilling rigs, barges, pontoons for cargo carrying, etc.
- **8.8.2** Specified ships shall be fitted with the relevant Register-approved Guidelines for organization and realization of standard towing which include the following:

permissible towing methods;

restrictions by stability and floodability conditions;

restrictions by distance from refuge places and a shore;

restrictions by weather conditions (sea state and wind force);

restrictions by load to hull structures and towing line;

conversion necessity and volume;

availability of crew, special staff and passengers;

life-saving, fire protection, navigation and radio communication appliances;

facilities for environment pollution prevention;

towing line calculation and towing vessel selection methods;

other measures required to ensure safe towing.

When developing documentation, there shall be used Annex 46 "Guidelines for safety of towed ships and other floating objects, including rigs, facilities and platforms in the sea" implemented by IMO resolution A.765(18) approved on 04.11.1993, Annex 28 "Guidelines on safe ocean towing" recommended by IMO Circular Letter MSC/Circ.884 dd. 21.12.1998, as well as Annex 47 "Recommendations to ensure seaworthiness properties and posing of restrictions due to weather conditions during passages" of the Annexes to the Guidelines on Technical Supervision of Ships in Service.

Review of documentation on standard towing is related to the competence of the RHO Classification Division.

**8.8.3** Classification certificate for ship which operation envisages standards towing shall contain constant restrictions with conditions of such towing.

Instead of listing of all these conditions, one can make references to the sections of ship's Registerapproved technical documentation with description of necessary conditions (information on stability, operational instructions, towing instructions, etc.).

**8.8.4** The issues of standard towing organization and realization do not relate to Register competence and are resolved by organization responsible for safe standard towing, and the Shipowner.

When developing passage plan by towing method, there shall be used Annex 46 "Guidelines for safety of towed ships and other floating objects, including rigs, facilities and platforms in the sea" implemented by IMO Resolution A.765(18) approved on 04.11.1993, Annex 28 "Guidelines on safe ocean towing" recommended by IMO Circular Letter MSC/Circ.884 dd. 21.12.1998, as well as Annex 47 "Recommendations to ensure seaworthiness properties and posing of restrictions due to weather conditions during passages" of the Annexes to the Guidelines on Technical Supervision of Ships in Service.

**8.8.5** If technical measures application (special preparation of ship or its parts, conversion, etc.) is special conditions for standard towing of a ship with the valid RS class, then the ship shall be submitted for occasional survey in order to confirm implementation of such measures.

Based on occasional survey results the RS Surveyor shall draw up a Report on Survey (Form 6.3.10). Classification part of ships' survey status shall be filled in with additional information on such a survey with reference to the Report on Survey. Issuance of Towing Certificate (Form 6.3.40) is not required, as the ship does not violate prescribed operation area and conditions and ship's class is retained within standard towing.

#### 8.9 PASSAGE OF SHIPS IN LAY-UP AND IN CONSERVATION

- **8.9.1** The passage issues for the ship in lay-up and in conservation are subject to consideration by RHO.
- **8.9.2** The passage issues for the ships in conservation are subject to the RHO consideration only for the ships with no RS class in accordance with the requirements given in 8.2.9.
- **8.9.3** The passage issues for the ships in lay-up under class suspended prior to laying up (e.g., the class status in code 25 "CLASS SUSPENDED (THE SHIP IS LAID-UP WITH THE CLASS SUSPENDED)") are subject to the RHO consideration for the ships with no RS class in accordance with the requirements given in 8.2.9.
  - **8.9.4** The Register shall review the passage of the laid-up ships planned for the following cases:
- .1 passage to the survey location (for placing into service) or to the ship repairing yard, if the port is not fitted with necessary conditions for the prescribed survey and/or execution of required repair (dry-docking facilities, repair facilities, spares etc.);
  - .2 passage to scrapping and recycling place.
- **8.9.5** The passage issues for the ship in lay-up for sailing to the new area of operation (basin) being laid-up, the passage issue shall be reviewed by the Register provided it is planned in tow in converted conditions and with no people on board.
- **8.9.6** Passage of ships in lay-up, outside the prescribed area of navigation/operation and/or outside the prescribed seasonal restrictions shall be reviewed by the Register if they are in tow in converted conditions and with no people on board.
- **8.9.7** If the ship is laid-up under the valid or suspended RS class (e.g., the class status in code 13, 24, 27), requires passage to the repairing yard or passage to the ship's breaking and scrapping site, RHO may consider a single ballast passage, provide the following conditions are met: .1 such passage is agreed with the flag state MA (in case of passage to the repairing yard);
- .2 positive results of the occasional survey intended for determination of ship's technical status for such passage in the scope specified considering overdue surveys and duration of laying-up;
- .3 eliminating the causes that result in class suspension in lay-up (carrying out overdue surveys/settlement of the debt).
- **8.9.8** The ship's passage possibility and terms of providing the ship laid-up, which class has been suspended in connection with an accident, shall be considered by RHO regarding the nature of the accident and its consequences.
- **8.9.9** Ship's passage laid-up in heavy ice conditions is subject to consideration of the Register. These conditions are determined by the category which is appropriate for the ship ice strengthening in accordance with the Rules for Construction.
  - 8.9.10 Passage plan and organization of passage in lay-up shall be carried out in compliance with 8.3.
  - **8.9.11** The passage issues for the ship in lay-up shall be carried out by RHO in compliance with 8.4.
- **8.9.12** Development and approval passage plan of the ship in lay-up shall be carried out in compliance with 8.5.
- **8.9.13** Assessment of ships technical conditions and checking of implemented measures are made by RS prior to the ship's passage laid-up in compliance with 8.6.
  - **8.9.14** Issuance of documents is performed in accordance with 8.7.

#### 9 IN-WATER SURVEY OF SHIPS AND OFFSHORE INSTALLATIONS

#### 9.1 GENERAL

**9.1.1** Provisions of the present Section apply to the in-water surveys of ships and other floating structures subject to the technical supervision of the Register.

For the purpose of the present Section, the following definitions have been adopted.

A special ized diver is a diver who has been trained in accordance with a special, approved by the Register programme for conducting in-water survey of ships and other floating structures.

Dock in g is baring the underwater hull in any way practicable, e.g. by placing the ship in a dry or floating dock, on building ways, on a slipway, on cribbing on the shore, on hydraulic jacks; making use of the water level difference during tides and ebbs (emptying), ship's heel and trim, as well as caissons, freezing-out in ice, etc.

**9.1.2** Survey of the underwater hull, rudder arrangement, propulsion unit, bottom and side valves and electrical navigation instruments installed in the underwater hull without docking is carried out using modern facilities for technical support: underwater TV, underwater photography, special equipment and instruments, Remotely Operated underwater Vehicles (ROV).

The performance characteristics of the technical support facilities used (resolution of underwater TV unit, lighting equipment, etc.) shall make it possible for the Surveyor to assess objectively the condition of the elements examined.

- **9.1.3** The survey shall be carried out by the surveyor to the Register employing services of the firm involved in in-water survey, recognized by RS in accordance with Section 8, Part I "General Regulations for Technical Supervision" of the Rules for Technical Supervision during Construction of ships and Manufacture of Materials and Products for Ships, using technical facilities specified in 9.1.2. When ROV are used, the provisions of Appendix 39 to the Guideline shall be followed.
- **9.1.4** The possibility of admitting the service suppliers recognized by ACS is described in Section 7, Part I "General Provisions" of the Rules, and 1.8.14, Part III "Survey of ships in compliance with International conventions, Codes, Resolutions and Rules for the Equipment of Sea-Going Ships" of the Guidelines.
- **9.1.5** In-water survey shall be carried out in the cases stipulated by 2.5, Part II "Survey Schedule and Scope" of the Rules.
- **9.1.6** If, as the result of survey, defects are found which detrimentally affect the safety of navigation, safety of life at sea and safe carriage of goods, the ship shall undergo a dock survey so the defects might be eliminated.
- **9.1.7** Based on the results of the underwater hull examination, the organisation draws up a protocol which shall be signed and approved by its Head. The name of the Surveyor having carried out the survey shall be stated in the protocol.
- **9.1.8** In order that the survey might be conducted, the following shall be submitted to the Register branch office three days before the due date:
- .1 Shipowner's letter with a technical justification (refer to 9.1.9) of the need for an in-water survey and a statement of the survey aim/ reason, which shall be signed by the Engineering Manager of the fleet and the Master of the ship;
- .2 request for in-water survey with an indication of the ship name, place and date of survey, as well as of the organisation in charge of the survey;
  - .3 work programme of the survey (refer to 9.1.10);
- .4 report on ship's underwater part examination by the firm who performed the in-water survey (if conducted before the survey under supervision of the RS surveyor).

- **9.1.9** The technical justification shall include:
- .1 brief information on the ship as a whole, hull construction, including construction of sea valve recesses and ice boxes, openings in the shell plating;
- .2 description of the general technical condition of underwater hull, deformation and wear of shell plates, condition of paint coat of underwater hull, framing in peaks and bottom tanks, condition of bottom and side valves, confirmation of the absence of water permeability and the cement boxes;
  - .3 information as to bilge keels installed, their design and condition;
- .4 information on the steering arrangement type, rudder body design, rudder body-to-rudder stock attachment, rudder body wear, steering arrangement bearing clearance during last docking, average annual wear of bearings, maximum permissible clearances, rudder body sagging gap, typical steering arrangement defects (based on earlier docking) and methods of their elimination;
- .5 information on propulsion unit, propulsion unit bearing clearances during last docking, average annual wear of bearings, maximum permissible clearances, number of propulsion unit running hours after construction and last docking, typical propulsion unit defects (based on earlier docking, and methods of their elimination);
- .6 description of technical condition of underwater hull and ship arrangements according to the report on ship's underwater part examination. The report on ship's underwater part examination, if carried out (refer to 9.1.8.4), shall be attached to the technical justification;
  - .7 Shipowner's conclusion on the underwater hull technical condition.
- **9.1.10** In each particular case, a work programme of survey shall be drawn up taking into consideration the results of the last docking, conditions and modes of the ship operation during the time elapsed after the last dock survey, bearing in mind the planned duration of ship service until the next submission for dock survey.

The information on technical condition of the underwater hull obtained during afloat survey shall be similar to that acquired during ordinary dock survey. Particular attention shall be given to the measurement of rudder stock bearing clearances, stern bearing clearances, oil analysis reports (for oil-lubricated shafts) with regard to the data obtained during the earlier surveys of the outside of the ship bottom. These items shall be included into the work programme in advance for agreement with the Register.

9.1.11 The work programme shall include the following stages:

.1 preparatory stage consisting of;

underwater hull cleaning (to the extent to be agreed with the Register);

rudder body and propeller cleaning;

dismantling and cleaning of sea chest inlet screens;

dismantling of the rope guard of the propeller shaft cone seal;

dismantling of the access holes of the rudder pintle fastening recesses;

cleaning of the sea valve recesses;

cleaning of the rudder pintle recesses;

cleaning of propeller shaft (all the way from the propeller hub to the stern tube arrangement), propeller shaft cone and stern bearing arrester;

marking of propeller blades;

hull preparation and its marking out into vertical zones for survey purpose;

.2 working stage consisting of:

underwater hull examination by zones;

internal survey of sea valve recesses;

survey of rudder body and of the lower portion of rudder stock, examination of rudder stock-to-rudder body attachment;

checking the rudder pintle nut locking;

measurement of steering arrangement bearing clearances;

measurement of rudder body sagging gap, making up a record book for gaps;

survey of propulsion unit, examination of the blade suction and driving surfaces, examination of propeller blade edges, examination of the detachable propeller blades to hub fastenings, examination of

hub and cone, and of cone-to-hub fastening, examination of propeller shaft cone seal, examination of stern tube bearing arresting strips, measurement of propulsion unit bearing clearance, making up a record book for clearances;

survey of bottom and side valves;

drawing up of documents;

.3 final stage consisting of:

installation of sea valve recess screens;

installation of access holes of rudder pintle recesses;

verification of compliance with the requirements of the Survey Report on the Ship (6.3.10).

- **9.1.12** When deciding on extension of the survey of the ship's bottom (in cases stipulated in Chapter 2.5, Part II "Survey Schedule and Scope" of the Rules), the work programme may be reduced at the RS Surveyor's discretion.
- **9.1.13** The survey shall be carried out in accordance with the Procedure for In-Water Survey of Ships and Offshore Installations (refer to Annex 1).
  - **9.1.14** The Surveyor is entitled to decline the survey in the following cases:
  - .1 if the requirements of Section 9 are not fulfilled;
- .2 where the assessment of the technical condition of the underwater hull elements is impossible due to insufficient water transparency, poor quality of TV picture, unstable character of ship elements demonstration by the specialized diver as a result of sea condition or current and in other similar cases.

#### 9.2 PREPARATION FOR SURVEY

- **9.2.1** Before the survey, the final technical documentation shall be submitted to the Surveyor (shell expansion drawing, steering arrangement assembly drawing, drawings of rudder stock, pintles and body, propeller, propeller shaft, sea valve recess layout, sacrificial protection plan, etc.).
- **9.2.2** It is recommended that photos (colour ones, preferably) be kept on board of the following items: propeller, rudder body with rudder stock and their fastenings, rope guard with its fastening and removal arrangements, as well as other photos which may be used for survey purposes.
- **9.2.3** The underwater hull shell plating, screw-rudder system, sea chest inlet screens, etc., shall be cleaned from fouling, dirt and rust.
- **9.2.4** Sea chest inlet screens, access holes of rudder pintle nut securing and locking recesses and, where necessary, rope guard shall be removed.
- **9.2.5** Propeller blades shall be numbered (No 1, 2, 3, etc.) so as to ensure good visibility of the marking on TV screen. The marking may be either permanent or temporary.
- **9.2.6** In order that the whereabouts of the specialized diver and/or ROV could be fixed during the survey, the underwater hull shall be marked. The marking may be either permanent or temporary (bobs, steel wire stretched between fixed points, etc.).
- **9.2.7** As far as practicable, the ship shall be trimmed by the bow to the maximum degree possible so the screw-rudder system could be bared to the greatest possible extent.

#### 9.3 SURVEY

**9.3.1** Prior to beginning the underwater hull examination, the Surveyor shall examine the following: the shell plating on the inside and framing at ends (fore peak and after peak);

the shell plating on the inside and framing in accessible areas in way of machinery space, bottom and sides;

from a float (where the requirement of 9.2.7 is complied with), the bared part of rudder arrangement (rudder trunk, rudder carrier, upper portion of rudder body, rudder heel, rudder-to-stock coupling, rudder head pintle, etc.) and propulsion unit (see 9.3.5),

and the familiarization with technical documentation in the scope specified in 9.1.1 and 9.2.1.

After satisfactory examination of the ship on the inside, the Surveyor shall proceed to the underwater hull examination.

- **9.3.2** Specialized divers equipped with a TV camera, facilities and tools shall successively and in accordance with the work programme show the surveyed items to the Surveyor who views the pictures of the items on the TV screen and directs the divers through the work manager.
- **9.3.3** The underwater hull, bottom and side openings, sacrificial protection, side keels, stems, welded and riveted joints, fairings of echo sounder transducers and sonar domes, as well as stabilizers (if installed on board) shall be examined.
- **9.3.4** The steering nozzles and fixed nozzles, rudder body, rudder stock portion accessible for examination, visible rudder pintle portions and condition of pintle securing, rudder-to-stock coupling, drain plugs, all rudder body welds (if not already examined in accordance with 9.3.1 when baring the screw-rudder system) shall be also examined. Clearance shall be measured in rudder carrier and rudder head bearing, in rudder gudgeons. The rudder stock sagging shall be measured as well. Where it is not possible to measure bearing clearances and the Surveyor has doubts as to reliability of the above components, he may require that the rudder stock be raised to height sufficient to make measurements and examinations.
- **9.3.5** When examining the propulsion unit, first and foremost attention shall be paid to the condition of all propulsion unit components accessible for supervision and their fastenings.

Particular attention shall be paid to the condition of the propeller shaft cone seal, detachable blade fastening, propeller hub fairing, stern tube bush, absence of cracks and deep corrosion failure in the root surfaces of blades.

The driving and suction surfaces of blades, as well as the propeller hub shall be examined for cracks.

- 9.3.6 In water-lubricated sterntube arrangements, clearances shall be measured.
- **9.3.7** Where necessary, a video recording of the item under examination shall be made or its photographs taken in order to study the defects found in more detail.
- **9.3.8** If indentations, buckling or deflections are found in the hull, the specialized diver shall measure the depth thereof by means of deflection meters, deformation gauges, magnetic rules and other similar instruments.
- **9.3.9** On agreement with the Surveyor, certain defects found during the survey may be eliminated while the ship is afloat (removal of worn protectors and fitting of new ones, cropping and partial repair of bilge keels, etc.).
- **9.3.10** If cracks are found in the hull or in the screw-rudder system, inspection for likely flaws shall be carried out under the water, using the method approved by the Register and, depending on its results, it shall be decided whether the defects can be eliminated afloat or in a dock.

#### 9.4 ASSESSMENT OF TECHNICAL CONDITION AND THE REGISTER DOCUMENTS

**9.4.1** On completion of the survey, the Surveyor and the representatives of the organisation and ship's officers shall:

ascertain whether the work programme of the examination is executed;

find out the drawbacks of the examination conducted;

assess the sharpness of the item images;

specify the description of defects that have been found (location, size, etc.);

determine the procedures for elimination of defects.

**9.4.2** All the measured data and photos of the items obtained during the survey shall be presented to the survey.

**9.4.3** Based on the survey results, the Surveyor to the Register shall draw up a relevant Report on Survey of the Ship (Form 6.3.10) or Ship's Survey Statement (Form 6.1.03). A protocol shall be attached to the Report/Statement (refer to 9.1.7).

Enclosed with the Report there also shall be relevant photos, reports and other documents (at the Surveyor's discretion) which are necessary to assess the technical condition of the surveyed items more completely.

#### 10 TECHNICAL SUPERVISION FOR MODU AND FOP IN SERVICE

#### 10.1 GENERAL PROVISIONS

- **10.1.1** Provisions of the Guidelines are applicable to MODU and FOP in the full extent if other is not stated in the text.
- **10.1.2** Survey schedule and scope of classification surveys of MODU/FOP in service shall comply with provisions of Section 19, Part III "Additional Surveys of Ships depending on their Purpose and Hull Material" of the Rules.

#### 10.2 ADDITIONAL REQUIREMENTS FOR SURVEY OF MODU

- **10.2.1** This Chapter contains additional requirements for survey of MODU, for which some statutory convention provisions (for instance, the International Convention on Load Lines, 1966, as amended (LL-66/88) and the International Convention for the Safety of Life at sea, 1974, as amended (SOLAS-74/78/88/00) are not applicable.
  - 10.2.1.1 Freeboard examination
- 10.2.1.1.1 During renewal surveys compliance of the load lines location with those indicated in the Load Line Certificate, availability of approved Information on Stability, Information on Damage Trim and Stability, Operating Manual or a relevant consolidated document on MODU shall be checked, as well as the arrangement of doors, hatches, engine room openings, manholes, hand holes, ventilators, air pipes, scuppers, inlets and discharges, scuttles, freeing ports, bulwarks, guard rails shall be checked for compliance with their structure and technical condition. When the results of MODU survey are satisfactory the Load Line Certificate shall be renewed.
- 10.2.1.1.2 During annual survey, correspondence of correct marking and painting of the load lines with those indicated in the Load Line Certificate, availability of approved Information on Stability, Information on Damage Trim and Stability, Operating Manual or a relevant consolidated document on MODU shall be verified, also the arrangement of doors, hatches, engine room openings, manholes, hand holes, ventilators, air pipes, scuppers, inlets and discharges, scuttles, freeing ports, bulwarks, guard rails shall be checked for their operating condition. When the results of this survey are satisfactory an entry regarding annual survey in the Load Line Certificate shall be made.
  - 10.2.1.2 Examination of stability and unsinkability.
- 10.2.1.2.1 During renewal survey, availability of the Register-approved Information on Stability, Information of damage trim and stability, Operating Manual or a relevant consolidated document on MODU shall be verified; and the check of MODU shall be carried out to ascertain that no alterations have been made in the lightship weight and in the hull structures, arrangements, equipment and systems which may affect the stability and damage stability.

Any alterations in the arrangement of openings, height of coamings, arrangement of piping and ducts shall be confirmed by the verification for compliance with the requirements of the MODU/FOP Rules to the damage trim and stability.

During renewal survey, all drives of closing appliances of openings as well as the driving gear provided for remote control of the valves of systems ensuring fulfillment of the requirements of the MODU/FOP Rules for damage trim and stability shall be tested in operation together with the associated alarm.

10.2.1.2.2. During annual survey availability of the approved Information on Stability, Operating Manual or a relevant consolidated document on MODU shall be verified; and an examination of MODU shall be carried out in order to detect alterations in the hull structures, arrangements, equipment and systems which may affect the stability and damage stability.

#### 10.3 REGISTER DOCUMENTS

- **10.3.1** Provisions of Section 6, Part I "General Provisions" (except for 6.5 to 6.8) are applicable to MODU and FOP.
- 10.3.1.1 During technical supervision of MODU and FOP in service and their classification compliance with the requirements of the RS Rules, as well as their and operating technical condition shall be certified by the certificates issued (as appropriate):

Classification Certificate (Form 3.1.2) – MODU;

FOP Classification Certificate (Form 3.1.2p) – FOP;

Seaworthiness Certificate (Form 1.1.2) – FOP depending on Flag State MA;

FOP Seaworthiness Certificate (Form 1.1.1p) depending on Flag State MA;

Load line certificate (Form 1.3.1) (for MODU under RF flag, for which requirements of MODU CODES A.414(XI), A.649(16) and A.1023(26)) are not applicable and in the case when LL-66 is not applicable too).

Tonnage Certificate (Form 1.2.12) (if ITC-69 is not applicable);

Pollution From Ships Prevention Certificates (Form 2.4.18) (in applicable cases);

Equipment Certificate (Form 4.1.1) etc.

For MODU and FOP where relevant provisions of MODU Code (1979, 1989, 2009 whichever is applicable by the date of construction), MARPOL 73/78, and other conventions the relevant certificates prescribed by applicable codes, conventions (also refer to 2.1.13 of Part III "Survey of Ships in Compliance with International Conventions, Codes, Resolutions and Rules for the Equipment of Sea-Going Ships" shall be issued.

Issuing / confirming / renewing the above certificates shall be based on the RS records (relevant checklists, reports, acts) specified in Section 6 of Part I "General Provisions".

### PART III. SURVEY OF SHIPS IN COMPLIANCE WITH INTERNATIONAL CONVENTIONS, CODES, RESOLUTIONS AND RULES FOR THE EQUIPMENT OF SEA-GOING SHIPS

#### 1 GENERAL

#### 1.1 LIST OF THE APPLICABLE INTERNATIONAL CONVENTIONS, CODES

The Part regulates the scope of survey of ship in service to confirm compliance of ship with the following applicable international conventions, codes and resolutions<sup>1</sup> (the original text thereof is available in the RS integrated informational system at: idocs.rs-class.org), and issuing the appropriate certificates):

The International Convention for the Safety of Life at Sea, 1974, as amended by the Protocol of 1978 and  $1988^2$ ;

The International Convention on Load Lines, 1966 as amended by the Protocol of 1988<sup>3</sup>;

The International Convention for the Prevention of Pollution from Ships, 1973, and Protocols of 1978 and 1997 referred to it, as amended by subsequent resolutions<sup>4</sup>;

The International Code for Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk, as amended by subsequent resolutions<sup>5</sup>;

The International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk, (IMO resolution MSC370.(93)) — for gas carriers built on or after 01.07.2016<sup>6</sup>;

Code for Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk, as amended by subsequent resolutions<sup>7</sup>;

Safety Code for Special Purpose Ships, 2008, adopted by IMO resolution MSC.266(84)<sup>8</sup>;

International Safety Code for High-Speed Craft, 1994, adopted by IMO Resolution MSC 36(63)<sup>9</sup>;

International Code for Safe Carriage of Grain in Bulk;

International Convention for the Control of Harmful Antifouling Systems on Ships, 2001<sup>10</sup>;

Occupational Safety and Health (Dock Work), Convention, 1979<sup>11</sup>;

International Maritime Solid Bulk Cargoes Code adopted by IMO resolution MSC.268(85), as amended by IMO resolutions MSC.318(89), MSC.354(92), MSC.393(95), MSC.426(98)<sup>12</sup>;

International Maritime Dangerous Goods Code, as amended<sup>13</sup>;

Code for the Construction and Equipment of Mobile Offshore Drilling Units, 2009<sup>14</sup>;

<sup>&</sup>lt;sup>1</sup>Documents which have amended conventions and codes may not be named in the consecutive text of the present Part of Guidelines.

Hereinafter referred to as SOLAS-74 as amended.

<sup>&</sup>lt;sup>3</sup>Hereinafter referred to as LL-66/88.

<sup>&</sup>lt;sup>4</sup>Hereinafter referred to as MARPOL 73/78.

<sup>&</sup>lt;sup>5</sup>Hereinafter referred to as IBC-83/90/00.

<sup>&</sup>lt;sup>6</sup>Hereinafter referred to as IGC – 83/90/00.

<sup>&</sup>lt;sup>7</sup>Hereinafter referred to as BCH – 85/90/00.

<sup>&</sup>lt;sup>8</sup>Hereinafter referred as the 2008 SPS Code.

<sup>&</sup>lt;sup>9</sup>Hereinafter referred to as HSC. <sup>10</sup>Hereinafter referred to as AFS Convention.

<sup>&</sup>lt;sup>11</sup>Hereinafter referred to as ILO-152.

<sup>&</sup>lt;sup>12</sup>Hereinafter referred to as IMSBC.

<sup>&</sup>lt;sup>13</sup>Hereinafter referred to as IMDG Code.

<sup>&</sup>lt;sup>14</sup>Hereinafter referred as 2009 MODU Code.

Code for the construction and equipment of ships carrying liquefied gases in bulk adopted by IMO resolution A.328(IX) as amended by IMO resolutions MSC.25 (60), MSC.377(93)<sup>15</sup>;

International Code for Fire Safety Systems<sup>16</sup>;

Convention on the International Regulations for Preventing Collisions at Sea, 1972<sup>17</sup>;

International Code for Ships Operating in Polar Waters (hereinafter referred to as "the Polar Code") adopted by IMO resolutions MSC.385(94), MEPC.264(68) as amended<sup>18</sup>;

International Code on the Enhanced Programme on Inspections during Surveys of Bulk carriers and Oil Tankers (the ESP Code) (IMO Assembly resolution A.1049(27) as amended)<sup>19</sup>;

Code for the Transport and Handling of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels (IMO resolution A.1122(30))<sup>20</sup>;

Survey Guidelines under the Harmonized System of Survey and Certification<sup>21</sup>;

International Convention for the Control and Management of Ships' Ballast Water & Sediments, 2004 (BWM Convention)<sup>22</sup>.

#### 1.2 APPLICATION OF INTERNATIONAL REQUIREMENTS

At renewal, annual, intermediate, periodical survey for renewal/confirmation of the international conventions, codes and resolutions listed in 1.1, as well as additional guidelines of the Flag State MA, set out on the Survey Division Web-site, Section "Additional Guidelines of Flag State MA" shall be used. This documentation possessing the force of law influences administrative activity in a precise way, and represents a sole original instrument stipulating responsibility which might be fixed upon ships in the event of an investigation of any casualty by the PSC, Flag State MA, Shipowners and other parties concerned.

At renewal survey of passenger ships carrying more than 36 passengers and constructed prior to 01 October, 1994, the observance of the provisions of reg.II-2/41-1 and 41 of SOLAS- 74/88, as amended by IMO resolution MSC.24(60)) shall be checked.

# 1.3 TECHNICAL SUPERVISION OF OBSERVANCE OF THE PROVISIONS OF THE RULES FOR THE EQUIPMENT OF SEA-GOING SHIPS, LOAD LINE RULES FOR SEA-GOING SHIPS AND OTHER RS REQUIREMENTS

In 4.1 the directions are given on carrying out surveys of life-saving appliances and signal means, radio- and navigational equipment developed by the Register to confirm compliance with the requirements of the Rules for the Equipment for Sea-Going Ships (refer to 4.1.1 — 4.1.4).

The directions on carrying out surveys of the equipment for prevention of pollution from ships developed by the Register are given in the Guidelines on Surveys of Ships for Compliance with the International Convention for the Prevention of Pollution from Ships of MARPOL 73/78 (refer to 4.1.5), as well as in the Rules for the Prevention of Pollution from Ships Intended for Operation in Sea Areas and Inland Waterways of the Russian Federation.

The directions on carrying out surveys of ship cargo handling gear are developed by the Register to confirm compliance with the requirements of the Rules for the Cargo Handling Gear of Sea-Going Ships (refer to 4.1.6).

<sup>&</sup>lt;sup>15</sup> Hereinafter referred to as GC.

<sup>&</sup>lt;sup>16</sup> Hereinafter referred to as FSS Code.

<sup>&</sup>lt;sup>17</sup> Hereinafter referred to as COLREGs.

<sup>&</sup>lt;sup>18</sup> Hereinafter referred to as the Polar Code.

<sup>&</sup>lt;sup>19</sup> Hereinafter referred to as the ESP Code.

<sup>&</sup>lt;sup>20</sup> OSV Chemical Code.

<sup>&</sup>lt;sup>2</sup> IMO resolution A.1120(30).

<sup>&</sup>lt;sup>22</sup> BWM Convention

The directions on carrying out surveys of ships and offshore installations not covered by the provisions of LL-66/88, are given in the Load Line Rules for Sea-Going Ships.

#### 1.4 CONDITIONS OF ISSUANCE OF INTERNATIONAL CERTIFICATES

Ships are surveyed and certificates issued on the grounds of authorisation from the Flag State MA and provided this State is the signer of the Convention.

#### 1.5 INTERPRETATION OF THE TERM "FIRST SURVEY"

Unless indicated otherwise, when the term "first survey" is referenced by a regulation in SOLAS-74 as amended, it relates to the first initial, annual, intermediate, periodical survey or renewal survey as applicable to the relevant certificates, whichever is due first after the date specified in the relevant regulation or any other survey if the Maritime Administration deems it to be reasonable and practicable, taking into account the extent of repairs and alterations to be undertaken.

For a ship under construction, the keel of which is laid before, but the ship is delivered after the date specified in the relevant regulation, the initial survey is the "first survey", and this ship needs to comply with the relevant regulation when it is delivered.

### 1.6 TECHNICAL SUPERVISION ON OBSERVANCE OF INTERNATIONAL CONVENTIONS DURING SHIP'S CONSTRUCTION

Technical supervision of observance of the requirements of the International conventions, codes, resolutions and agreements shall be carried out by the Register during construction of ships: in compliance with the Guidelines on Technical Supervision of Ships under Construction;

MODU and FOP: in compliance with the Guidelines on Technical Supervision during Construction of Mobile Offshore Drilling Units and Fixed Offshore Platforms and Manufacture of Materials and Products.

Technical supervision of observance of the requirements of the International conventions, codes, resolutions and agreements is carried out by the Register in accordance with the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships.

#### 1.7 DOCUMENTS

**1.7.1** The basic documents confirming compliance with the requirements of SOLAS-74 as amended, are the following:

Passenger Ship Safety Certificate with the Record of Equipment. Term of validity — 12 months; Cargo Ship Safety Construction Certificate. Term of validity — 60 months;

Cargo Ship Safety Equipment Certificate with the Record of Equipment. Certificate's term of validity for ships flying the flags of the 1988 Protocol member-states or IMO resolution A.883(21) member states — 60 months, for other ships — 24 months;

Cargo Ship Safety Radio Certificate with the Record of Equipment. Certificate's term of validity for ships flying the flags of the 1988 Protocol member states or IMO resolution A.883(21) — 60 months, for other ships — 12 months;

Exemption Certificate. The Certificate shall be issued provided some exemptions are allowed for a ship on the basis and in accordance with the provisions of SOLAS-74/78/88/00 in addition to the above certificates. Term of validity of the Exemption Certificate shall not exceed the term of validity of the Certificate to which it is attached.

Regulation I/12 (v), SOLAS-74/88 provides issuing of the Cargo Ship Safety Certificate instead of the Cargo Ship Safety Equipment Certificate, the Cargo Ship Safety Construction Certificate and the Cargo Ship Safety Radio Certificate. Thus, the survey for issuing and renewal of the Cargo Ship Safety Certificate shall be carried out in compliance with the requirements to conducting surveys to be substituted by it, and similarly, the annual and intermediate surveys shall be the same as those required for the certificates to be substituted; therewith, the appropriate sections shall be confirmed in the Cargo Ship Safety Certificate.

Documents confirming compliance with the requirements of SOLAS-74/88 related to carriage of dangerous goods are the documents listed in 2.1.5.

**1.7.2** Documents confirming compliance with the requirements of LL-66/88 are the following: International Load Line Certificate.

Term of validity — 60 months.

International Load Line Exemption Certificate which is issued instead of International Load Line Certificate, 1966. Term of validity of Certificate for ships with new structural features — 60 months. Term of Certificate's validity for a ship, which usually is not engaged on international voyages is limited to the duration of a single passage for which it is issued.

1.7.3 Documents confirming compliance with the requirements of MARPOL 73/78 are the following: International Oil Pollution Prevention Certificate with Supplements A and B. Term of validity — 60 months;

International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk. Term of validity — 60 months;

International Sewage Pollution Prevention Certificate. Term of validity — 60 months;

Garbage Pollution Prevention Certificate. The Certificate is issued on behalf of the Register to ships flying the flag of the RF if there is authorization from other Flag State Maritime Administrations. The Certificate's term of validity — 60 months;

International Air Pollution Prevention Certificate with Supplement. Term of validity — 60 months; Engine International Air Pollution Prevention Certificate (Form 2.4.40) with Supplement (Form 2.4.41). The Certificate's term of validity — for the entire service life of marine engine.

- 1.7.4 Document confirming the compliance of the requirements of International Convention on the Control of Harmful Antifouling Systems in Ships, 2001, is International Anti-fouling System Certificate with the Record of antifouling systems. The Certificate's term of validity is limited by the date of replacement or renewal of the antifouling system.
- **1.7.5** Documents confirming compliance with the requi-rements of IBC-83/90/00, BCH 85/90/00, IGC-83/90/00, HCS, Safety Code of Special Purpose Ships, 1983, 2009 MODU Code, are, respectively:

International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk. Term of validity — 0 months:

Certificate of Fitness for the Carriage of Dangerous Che-micals in Bulk. Term of the Certificate validity — 60 months;

International Certificate of Fitness for the Carriage of Liquified Gases in Bulk. Term of validity — 60 months:

High-Speed Craft Safety Certificate. Term of Certificate's validity for the ships flying the flag of the 1988 Protocol member-states — 60 months, for other ships — 12 months;

Special Purpose Ship Safety Certificate. Term of validity — 60 months.

Mobile Offshore Drilling Unit Safety Certificate (2009). Term of the Certificate validity — 60 months. **1.7.6** Documents confirming compliance with the ILO-152 requirements are the following:

Register of ship's lifting appliances and cargo handling gear. Term of Register validity — 10 years; Certificate of Test and Thorough Examination of Lifting Appliances. Term of Certificate's validity — 60 months;

Certificate of Test and Thorough Examination of Derricks Used in Union Purchase. Term of Certificate's validity — 60 months;

Certificate of Test and Thorough Examination of Interchangeable Components and Loose Gear. Unlimited term of Certificate's validity;

Certificate of Test and Thorough Examination of Wire Ropes. Unlimited term of Certificate's validity.

- 1.7.7 The document confirming compliance with the requirements of the International Convention on Tonnage Measurement 1969 is the International Tonnage Measurement Certificate (1969). The Certificate has no validity terms. When issuing, the additional requirements of the Flag State MA, the Rules for Tonnage Measurement of Ships and the RS internal procedures shall be taken into consideration.
- 1.7.8 The document confirming compliance with the requirements of the BWM Convention is the International Certificate of Ballast Water Management/Certificate of compliance with the International Ballast Water Management.
- **1.7.9** The document confirming compliance with the requirements of the Polar Code is the Polar Ship Certificate (Form 2.1.29) with the Record of Equipment for the Polar Ship Certificate (Form 2.1.30).
- **1.7.10** A list of documents specified in Chapter 1.7 is not exhaustive. When issuing documents for ships, one shall be guided by the provisions of applicable conventions, codes, resolutions, additional instructions of the Flag State MA, the RS internal procedures for issuing the RS records. In sections 2 4 the instructions are given on the extent of survey for issuing/renewal/confirmation of documents prescribed by the conventions, codes, as well as additional information on the documents to be issued.
  - **1.7.11** Details on drawing up of statutory certificates:
- .1 the appropriate statutory certificates become invalid when periodical, annual or intermediate survey of ship or survey of the outside of the ship's bottom (depending on the case) has not been performed within the prescribed terms (reg. I/14 (i) of SOLAS-74/88, article 19 (9) (c), LL-66/88; Annex I/10.9.1 to MARPOL 73/78; Annex II/10.9.1 to MARPOL 73/78; Annex II/10.9.1 to MARPOL 73/78; reg. E-5.9.3 of BWM Convention; reg. 1.5.6.9.1 to IBC-83/90/00; reg.1.4.6.9.1 to IGC 83/90/00; reg. 1.6.6.9.1 to BCH-85/90/00 and reg.1.3.6 to Part I-A of the Polar Code. Upon completion of the relevant survey (the one that has not been performed and taking into consideration the time period expired from the date of the survey scheduled to be completed) a new statutory certificate shall be issued. In accordance with the agreements with the particular Flag State MA, the existing certificate may be revalidated instead of the issuing of a new one. The Flag State MA shall be promptly notified by RHO of each similar case for preventive measures to be taken.

When a new certificate is issued it shall be issued for a term not exceeding the validity of the existing certificate, while "the window" time periods of annual surveys will remain previous. Thus, the dates of next surveys in the sections relating to periodical confirmations shall not be indicated in the certificates. The invalid certificate shall contain the entry "INVALID" signed and stamped by the Surveyor with a reference to the RS record indicating the reasons of such a decision.

Ship Survey Statement (Form 6.1.03) in the Section "Additional Information" shall contain the following entry:

"Certificate(s) [to specify the form code] due to the ship submission at unfixed terms [to ispecify the type of survey] survey shall be reissued. Date of the next annual/ intermediate survey — DD.MM.YY — DD.MM.YY".

The entry shall be added for submitting upon request of external parties in order to clarify why the certificate(s) has (have) been issued for incomplete term and the annual survey dates do not coincide with the issue date of the certificate;

- .2 statutory certificates become invalid if the ship has not been submitted for the survey for renewal of the appropriate statutory certificate within the prescribed terms. New statutory certificates shall be issued based on the survey for renewal of the certificate;
- .3 where a periodical, annual or intermediate survey required for confirmation of a statutory certificate has been carried out before the fixed date, one shall be guided by the provisions of 2.2.1.4, Part II "Survey Schedule and Scope" of the Rules as far as statutory certificates are concerned;
- .4 if renewal survey required for issuing a statutory certificate is performed after the expiry date of the existing certificate (X months later), the validity term of the renewed certificate shall be established for not more than 5 years from the expiry date of the existing certificate, no granted postponement of renewal and extension being taken into account, that is 5 years minus X months. Therefore, overdue survey for certificate renewal will result in reduced certificate validity term. The Report on Survey shall contain records concerning

the grounds for issuing the certificate for incomplete term as follows: "Certificate is issued not for full term, as the ship is submitted for renewal of this certificate not in the terms established for renewal survey";

- .5 if renewal survey required for issuing a statutory certificate is performed earlier than 3 months before the expiry date of its term (X months earlier), the 5 years validity term from the date of completion of the mentioned survey shall be established. In this case, the Cargo Ship Safety Construction Certificate, International Load Line Certificate and certificates for compliance with the requirements of MARPOL 73/78 are issued valid for 5 years from the date of actual completion of the renewal survey. The Passenger Ship Safety Certificate shall be issued valid for 1 year, similarly dating from. Note shall be taken that in this case X months that cover the time between the specified survey date and actual completion of premature renewal survey will be lost by the Shipowner;
- .6 for ships to which SOLAS-74 as amended applies, with the suspended or overdue class, the relevant statutory certificates, issued by the Register, become invalid. With regard to the validity of other statutory certificates issued by the Register, it is necessary to be guided by the additional instructions of the particular Flag State MA;
- .7 at change of flag the statutory documents shall be re-issued in the similar procedure as specified in 4.2.2. The Report on Survey shall record the renewal in connection with change of the ship's flag as the grounds for re-issuing;
- **.8** at ship's transfer of class without change of flag the statutory certificates shall be issued in accordance with the provisions set out in 4.2.1.
- 1.7.12 Unless expressly provided otherwise in the text of the requirements in SOLAS-74 as amended, LL-66/88 and MARPOL 73/78 Conventions and any of their mandatory Codes, distances (such as tank length, height, width, ship (or subdivision or waterline) length, etc.) shall be measured by using moulded dimensions.
- **1.7.13** After the entry into force of amendments to LL-66/88, SOLAS-74 as amended and MARPOL 73/78, as well as codes made mandatory under these Conventions, the existing certificates shall be replaced in compliance with the following guidance:
- .1 in cases where the ship need not comply with the new requirements, the certificate (and its supplement, if any) is not re-issued until its expiry;
- .2 in cases where the ship shall comply with the new requirements, the certificate (and its supplement, if any) is re-issued after survey for compliance with the new requirements;
- .3 where a ship is subjected to a modification or conversion which involves an additional survey, the certificate (and its supplement, if any) is re-issued.
- 1.7.14 At endorsement/issuance/renewal of documents confirming compliance with the requirements of the Load Line Rules, Rules for the Equipment of Sea-Going Ships, Rules for the Tonnage Measurement of Sea-Going Ships, Rules for the Prevention of Pollution from Ships Intended for Operation in Sea Areas and Inland Waterways of the Russian Federation, etc., it is necessary to be guided as follows: the terms of validity of the documents issued by the Register shall comply with the terms of Classification Certificate, and at class withdrawal, suspen¬sion or overdue survey the documents shall be similarly invalidated. With regard to imposing/cleaning of conditions it shall be guided by provisions of Annex 17.
- **1.7.15** When issuing the documents, the provisions of Section 6, Part I "General Provisions", as well as the RS internal procedures related to drawing up of the RS records shall be observed.

#### 1.8 SURVEYS

**1.8.1** The requirements to survey of ships, periodicity of surveys and documents to be issued shall be established by conventions and codes. The applicability of the requirements of conventions, codes, resolutions depend on the following criteria:

depending on the amendments confirmed by the ship's flag state, the appropriate requirements shall be applied to surveys, their periodicity and terms of certificate validity established by the applicable conventions, codes, as amended, with due regard to additional requirements of the Flag State MA, if available.

According to some provisions of SOLAS-74 and MARPOL 73/78, the applicability of the requirements to ships shall be determined by the following dates:

- .1 date of the contract for construction at the date of dd/mm/yy or later; or
- .2 in case of absence of the contract for construction by the date of keel laying or the date when the ship was at the same stage of construction at the date at the date of dd/mm/yy or later; or
  - .3 date of delivery at the date at the date of dd/mm/yy or later.

Harmonized and non-harmonized ship survey systems established by the applicable amendments to conventions, codes, signed by certain flag state, are applied for survey.

The majority of flag states applies the harmonized system for survey of ships and certificate issuing that is based on compliance with the provisions of the following conventions, codes (refer to the status of conventions/codes at the IMO website:

SOLAS-74, as amended by the 1988 Protocol thereto;

LL-66 as amended by the 1988 Protocol thereto;

MARPOL73 as amended by IMO resolution MEPC.39(29) and Protocol 1978;

IBC Code as amended by IMO resolutions MEPC.40(29) and MSC.16(58);

IGC Code as amended by IMO resolution MSC.17(58);

BCH Code as amended by IMO resolutions MEPC.41(29) and MSC.18(58).

The basic procedure in compliance with which the Flag State MA joined to the harmonized system of survey conducting and certificate issuing on the basis with the above Protocols, resolutions or the organizations recognized by them are authorized for performing the appropriate surveys, is given in IMO resolution A.1120(30).

IMO resolution A.1120(30) contains the requirements for issuing, confirmation, renewal of certificates and other documents prescribed by the following conventions, codes:

SOLAS-74/88, as amended;

LL- 66/88, as amended;

MARPOL 73/78 as amended by the 1997 Protocol, as amended;

BWM Convention;

IBC Code - 83/90/00;

IGC Code - 83/90/00;

BCH Code- 85/90/00;

the Polar Code.

In Sections 2 to 4 the general requirements are given on the survey for issuing/renewal/confirmation of the applicable certificate (with the records of equipment, where necessary). More detailed information on the items of supervision is specified in the check-list of the STORM system.

Despite the fact that IMO resolution A.1120(30) has a clearly-defined application it shall be applied, where the case may be, to drilling units and other platforms covered by Annex I/39 and Annex VI/5 to MARPOL 73/78.

As regards the ships flying the flags of the states being the participants of the harmonized survey system based on IMO resolution A.883(21) (the convention status may be clarified at the IMO website), the applicable provisions of IMO resolution A.883(21) and the applicable instructions of the Flag State MA shall be used.

As regards the ships flying the flags of the states not being the participants of any harmonized survey system, one shall be guided by the provisions of the applicable conventions, codes without reference to the said protocols, resolutions, by which the harmonized systems are established, as well as the instructions of the Flag State MA.

**1.8.2** While using the harmonized system for survey conducting and certificate issuing, one shall be guided by the following:

The harmonized system schematically shown in Annex 24 to the Guidelines shall provide the following:

**1.8.2.1** usual annual interval between the surveys based on the initial, annual, intermediate, periodical surveys for renewal of the certificate depending on the case, except for Annex IV to MARPOL 73/78 based on the initial survey and survey for the certificate renewal;

- **1.8.2.2** the procedure to ensure the required flexibility for each survey type that allows the following:
- **1.8.2.2.1** the possibility to complete the survey for the certificate renewal within 3 months prior the expiry of the existing certificate while maintaining its validity;
- **1.8.2.2.2** six month interval within three months before and after the anniversary date of certificates for the annual, intermediate and periodical surveys;
  - **1.8.2.2.3** the maximum validity period is five years as applied to all certificates for cargo ships;
  - 1.8.2.2.4 the maximum validity period is 12 months for the Passenger Ship Safety Certificate;
- **1.8.2.2.5** a system for extension of certificates for the period up to three months enabling the ship to complete the voyage, or up to one month for the ship engaged in short voyages;
- **1.8.2.2.6** when the extension is granted, the validity period of a new certificate shall be started from the expiry date of the existing certificate till the extension thereof;
- **1.8.2.2.7** flexible system of inspection of the outside of the ship's bottom, provided the following shall be observed:
- .1 minimum two inspections during any five year validity period of the Cargo Ship Safety Construction Certificate or Cargo Ship Safety Certificate;

and

- .2 the interval between any two inspections shall not exceed 36 months;
- **1.8.2.2.8** Cargo Ship Safety Certificate in compliance with SOLAS-74/88 as an alternative to separate Cargo Ship Safety Construction Certificates, Cargo Ship Safety Equipment Certificate and Cargo Ship Safety Radio Equipment Certificate; and
- **1.8.2.2.9** flexible system as regards the periodicity of surveys and validity of certificates provided the minimum extent of survey is observed.

In the harmonized survey system the following survey types are used in the survey in compliance with the Convention:

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Initial (SOLAS-74/88:
reg. I/7(a) i) and 7(b) i);
reg. I/8(a) i) and 8(b) i);
reg. I/9(a) i) and 9(b) i);
reg. I/10(a) i) and 10(b)i);
LL-66/88: article 14(1) a);
MARPOL 73/78: Annex I/6.1.1;
MARPOL 73/78: Annex II/ 8.1.1;
MARPOL 73/78: Annex IV/ 4.1.1;
MARPOL 73/78: Annex VI/ 5.1.1;
BWM Convention: reg. E-1.1.1;
IBC Code-83/90/00: reg. 1.5.2.1.1;
IGC Code-83/90/00: reg. 1.4.2.1;
BCH Code-85/90/00: reg. 1.6.2.1.1.
Renewal surveys
(SOLAS-74/88: regulations I/7(a) ii) and 7(b) ii);
regulations I/8(a) ii) and 8(b) ii);
regulations I/9(a) ii) and 9(b) ii);
regulations I/10(a) ii) and 10(b) ii);
LL-66/88 article 14(1) b);
MARPOL 73/78: 73/78: Annex I/ 6.1.2;
MARPOL 73/78: Annex II/ 8.1.2;
MARPOL 73/78: Annex IV/ 4.1.2;
MARPOL 73/78: Annex VI/ 5.1.2;
BWM Convention regulation E-1.1.2
IBC Code regulation 1.5.2.1.2
IGC Code regulation 1.4.2.2
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BCH Code regulation 1.6.2.1.2.
Periodical
(SOLAS- 74/88: reg. I/8(a) iii) and 8(b)ii);
reg. I/9(a) iii) and 9(b) iii).
Intermediate
(SOLAS-74/88: regs I/10(a) iii) and 10(b) iii);
MARPOL Annex I/ 6.1.3;
MARPOL Annex II/ 8.1.3;
MARPOL Annex VI/ 5.1.3;
BWM Convention regulation E-1.1.3;
IBC Code regulation 1.5.2.1.3;
IGC Code regulation 1.4.2.3;
BCH Code regulation 1.6.2.1.3).
Annual
(SOLAS-74/88: regs I/8(a) iv), 8(b) iii), 10(a) iv) and 10(b) iv);
LL-66/88 article 14(1)(c);
MARPOL 73/78 Annex I/ 6.1.4;
MARPOL 73/78 Annex II regulation 8.1.4;
MARPOL 73/78 Annex VI regulation 5.1.4;
BWM Convention regulation E-1.1.4;
IBC Code-83/90/00 regulation 1.5.2.1.4;
IGC Code-83/90/00 regulation 1.4.2.4;
BCH Code-85/90/00 regulation 1.6.2.1.4.
Survey of the outside of ship's bottom
(SOLAS-74/88: reg. I/10(a) v) and 10(b) v)).
Additional
(SOLAS-74/88: regulations I/7(a)(iii) and 7(b)(iii);
      regulation I/8(a) iv);
      regulation I/9(a)(iv);
      regulation I/10(a)(iv);
MARPOL 73/78 Annex I/6.1.5;
MARPOL 73/78 Annex II/8.1.5;
MARPOL 73/78 Annex IV/4.1.3;
MARPOL 73/78 Annex VI/5.1.5;
BWM Convention regulation E-1.1.5;
IBC Code-83/90/00 regulation 1.5.2.1.5;
IGC Code-83/90/00 regulation 1.4.2.5;
BCH Code-85/90/00 regulation 1.6.2.1.5)
For the purposes of survey, the following terms are used as regards the application of IMO resolution
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A.1120(30):

"Examining" except where used in "examining the plans" or "examining the design" shall be understood as an 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. The extent of this examination shall be adapted by the surveyor considering the type of survey performed (e.g. initial, annual, renewal) and the actual maintenance condition of the ship and its equipment;;

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

1.8.3 The scope of surveys are given in appropriate sections of the present Part. Survey of the ship and all its components for issuing and confirmation, where required, the validity of statutory documents shall be carried out simultaneously, where appropriate. The survey terms shall, in general, coincide with the

survey terms for confirmation or renewal of the ship's class established by Part I "Classification" of the Rules for the Construction. The Certificate becomes invalid when the periodical, intermediate or annual surveys, as appropriate, or the inspection of the outside of the ship's bottom is not completed within the periods specified in the relevant regulation or article (reg. I/14 i) i) of SOLAS-74/88, article 19 (9) (c) of LL-66/88, Annex I/10.9.1 to MARPOL 73/78, Annex II/10.9.1 to MARPOL 73/78, Annex IV/8.8.1 to MARPOL 73/78, Annex VI/9.9.1 to MARPOL 73/78, reg. E-5.9.3 of BWM Convention, reg. 1.5.6.9.1 of IBC-83/90/00, reg. 1.4.6.9.1 of IGC-83/90/00, reg. 1.6.6.9.1 of BCH-85/90/00 and reg. 1.3.6 of Part I-A of the Polar Code). Upon completion of the appropriate overdue survey (that was not carried out, and with due regard to the time period expired from the date when the survey would have been completed), a new statutory certificate shall be issued. In compliance with the agreements with the particular Flag State MA, the existing certificate may be revalidated instead of issuing of a new one. Additional instructions are given in 1.7.

- **1.8.4** An initial survey is a complete inspection before a ship is put into service of all the items relating to a particular certificate, to ensure that the relevant requirements are complied with and that these items are satisfactory for the service for which the ship is intended. The initial survey shall be conducted before the ship is put in service or when a new instrument applies to an existing ship, and the appropriate certificate is issued for the first time. The initial survey shall include a complete inspection, with tests when necessary, of the structure, machinery and equipment to ensure that the requirements relevant to the particular certificate are complied with and that the structure, machinery and equipment are fit for the service for which the ship is intended. The initial survey shall consist of:
- **1.8.4.1** an examination of the plans, diagrams, specifications, calculations and other technical documentation to verify that the structure, machinery and equipment comply with the requirements relevant to the particular certificate;
- **1.8.4.2** an inspection of the structure, machinery and equipment to ensure that the materials, scantlings, construction and arrangements, as appropriate, are in accordance with the approved plans, diagrams, specifications, calculations and other technical documentation and that the workmanship and installation are in all respects satisfactory; and
- **1.8.4.3** a check that all the certificates, record books, operating manuals and other instructions and documentation specified in the requirements relevant to the particular certificate have been placed on board the ship.

An application for an initial survey shall be accompanied by plans and designs referred to in Sections 1, 2, 4 and 5 of Annex 1 and in Annexes 2 to 4 to IMO resolution A.1120(30), as appropriate, together with:

- .1 the particulars of the ship;
- .2 any exemptions sought; and
- .3 any special conditions.
- **1.8.5 Periodical survey (PS)** is an inspection of the items related to the particular survey to ensure that they are in satisfactory conditions and fit for the type of service for which the ship is intended. Periodical survey shall be held within three months before or after the second anniversary date or within three months before or after the third anniversary date in the case of the Cargo Ship Safety Equipment Certificate. The periodical survey shall consist of an inspection, with tests when necessary, of the equipment to ensure that requirements relevant to the particular certificate are complied with and that they are in a satisfactory condition and are fit for the service for which the ship is intended. The periodical survey shall also consist of a check that all the certificates, record books, operating manuals and other instructions and documentation specified in the requirements relevant to the particular certificate are on board the ship. 4.4.2.3 Where a periodical survey has not been carried out within the due dates, reference shall be made to 1.8.3.
- **1.8.6 Inspection of the outside of ship's bottom (BS)** is an inspection of the outside of ship's bottom and survey of related items to ensure that they are in a satisfactory condition and fit for the service for which the ship is intended.

- **1.8.6.1** While conducting the inspections of the outside of the ship's bottom one shall be guided by the following. There shall be a minimum of two inspections of the outside of the ship's bottom during any five-year period (i.e. the five year validity period) of the Cargo Ship Safety Construction Certificate or the Cargo Ship Safety Certificate, except where SOLAS-74/88 regulation I/14(e) or (f) is applicable. One such inspection shall be carried out on or after the fourth annual survey in conjunction with the renewal of the Cargo Ship Safety Construction Certificate or the Cargo Ship Safety Certificate. Where the Cargo Ship Safety Construction Certificate or the Cargo Ship Safety Certificate has been extended under SOLAS 74/88 regulation I/14(e) or (f), this five-year period may be extended to coincide with the extended validity of the certificate. In all cases, the interval between any two such inspections shall not exceed 36 months.
- **1.8.6.2** Inspections of the outside of the ship's bottom shall normally be carried out with the ship in a dry dock. However, consideration may be given to alternate inspections being carried out with the ship afloat. Special consideration shall be given before ships of 15 years of age and over other than bulk carriers and oil tankers are permitted to have such surveys afloat. Inspection of the outside of the ship's bottom of bulk carriers and oil tankers of 15 years of age and over shall be carried out with the ship in dry dock. Inspections with the ship afloat shall only be carried out when the conditions are satisfactory and the proper equipment and suitably trained staff are available. For ships subject to enhanced survey, the provisions of paragraph 2.2 of the applicable part of annex A or B, of the ESP Code (IMO resolution A.1049(27), as amended, shall apply. More details are given in 2.5, Part II "Survey Schedule and Scope" of the Rules.

Despite the fact that part of the requirements relates to the Cargo Ship Safety Construction Certificate, the separate section is provided in IMO resolution A.1120(30) as regards an inspection of the outside of ship's bottom.

**1.8.6.3** When carrying out the inspections of the outside of the ship's bottom of passenger ships the following guidelines shall be complied with: a minimum of two of the inspections of the outside of the ship's bottom during any five-year period shall be conducted in dry dock.

In all cases, the maximum interval between any two dry-dock bottom inspections shall not exceed 36 months.

Where acceptable to the Flag State MA, the minimum number of surveys in dry dock of the outside of the bottom of a passenger ship which is not a ro-ro passenger ship in any five-year period may be reduced from two to one taking into consideration the provisions of IMO Circular MSC.1/Circ.1348. In such cases the interval between consecutive inspections in dry dock shall not exceed 60 months.

Note. The definition of "any five-year period" is the five-year period of validity of the International Load Line Certificate.

**1.8.6.4** Inspections of the ship's bottom required for the renewal survey that are not conducted in drydock may be carried out with the ship afloat. The bottom inspection, regardless of method, shall be carried out within the allowable time window for the Passenger Ship Safety Certificate renewal survey (i.e., within 3 months time window before the expiry date of the Certificate). Additionally, inspections of the outside of the ship's bottom conducted afloat shall only be carried out when the conditions are satisfactory and the proper equipment and suitably qualified staff is available. Rudder bearing clearances specified in 2.1.4.2.2.1 need not be taken at the afloat inspections

Special consideration shall be given to ships of 15 years of age or over before being permitted to credit inspection afloat. For more details refer to 2.5, Part II "Survey Schedule and Scope" of the Rules.

- **1.8.6.5** If a survey in dry-dock is not completed within the maximum intervals referred to above, the Passenger Ship Safety Certificate shall cease to be valid until the survey in dry-dock is completed.
- **1.8.7 Renewal survey (RS)** is the same as a periodical survey but also leads to the issue of a new certificate. The renewal survey shall be held before the appropriate certificate is renewed. The Cargo Ship Safety Construction renewal survey may be commenced at the fourth annual survey and may be progressed during the succeeding year with a view to completion by the fifth anniversary date. The survey items of the fourth annual survey shall not be credited to the completion of the renewal survey. For all other Certificates, the renewal survey may be commenced not earlier than three months prior to the proscribed date of survey.

- **1.8.7.1** The renewal survey shall consist of an inspection, with tests when necessary, of the structure, machinery and equipment to ensure that the requirements relevant to the particular certificate are complied with and that they are in a satisfactory condition and are fit for the service for which the ship is intended.
- **1.8.7.2** The renewal survey shall also consist of a check that all the certificates, record books, operating manuals and other instructions and documentation specified in the requirements relevant to the particular certificate are on board the ship.
- **1.8.7.3** Concurrent crediting to both intermediate and renewal safety construction survey for surveys of spaces shall not be acceptable.
- **1.8.8 Intermediate survey (InS)** is an inspection of specified items related to the particular certificate to ensure that they are in a satisfactory condition and fit for the service for which the ship is intended.
- **1.8.8.1** The intermediate survey shall be held within three months before or after the second anniversary date or within three months before or after the third anniversary date of the appropriate certificate and shall take the place of one of the annual surveys.
- **1.8.8.2** The intermediate survey shall be an inspection of items relevant to the particular certificate to ensure that they are in a satisfactory condition and are fit for the service for which the ship is intended.
- **1.8.8.3** When specifying items of hull and machinery for detailed examination, due account shall be taken of any continuous survey schemes that may be applied by classification societies.
- **1.8.8.4** Where an intermediate survey has not been carried out within the due dates, reference shall be made 1.8.3.
- **1.8.9** Annual survey (AS) is a general inspection of the items related to the particular survey to verify that they are maintained and are for the service for which the ship is intended.
- **1.8.9.1** The annual survey shall be held within three months before or after each anniversary date of the certificate.
- **1.8.9.2** An annual survey shall enable the Flag State MA to verify that the condition of the ship, its machinery and equipment is being maintained in accordance with the relevant requirements.
  - **1.8.9.3** In general, the scope of the annual survey shall be as follows:
- .1 it shall consist of a certificate examination, a visual examination of a sufficient extent of the ship and its equipment, and certain tests to confirm that their condition is being properly maintained;
- .2 it shall also include a visual examination to confirm that no unapproved modifications have been made to the ship and its; .3 the content of each annual survey is given in the respective guidelines; the thoroughness and stringency of the survey shall depend upon the condition of the ship and its equipment; and
- .4 shall any doubt arise as to the maintenance of the condition of the ship or its equipment, further examination and testing should be conducted as considered necessary.
- **1.8.9.4** Where an annual survey has not been carried out within the due dates, reference shall be made to 1.8.3.
- **1.8.10 Additional survey (AdS)** means an inspection either general or partial according to the circumstances to be made after a repair resulting from investigations or whenever any important repairs or renewals are made.
- **1.8.10.1** Additional (occasional) survey of the ship, its structure, machinery, equipment and outfit shall be carried out eact time after an emergency occurrence or after detection of defect affecting the ship safety or quality or completeness of its life-saving appliances, or other outfit as well as during repair or replacement of the old equipment by the newer one in order to assess its compliance with the requirements of international conventions and agreements.
- **1.8.10.2** Additional (occasional) survey after an emergency occurrence shall be carried out in the port where an accident has taken place or in the first port visited by the ship after the accident.
- **1.8.10.3** The survey shall be carried out in order to detect damages, agree the scope of works relating to the elimination of consequences of the emergency occurrence and to assess possibility and conditions of continuance of validity of the documents which have been issued in accordance with the requirements of the international conventions and agreements.

- **1.8.10.4** Additional (occasional) survey may be carried out upon request of the Shipowner or Underwriter between dates of periodical and mandatory annual surveys or periodical inspections. The survey shall be carried out in order to confirm compliance of the actual technical condition of the ship's structures, machinery, equipment or outfit with the requirements of the internal conventions and agreements.
- **1.8.10.5** Additional (occasional) survey may be carried out upon the Register initiative between dates of periodical and mandatory annual survey (refer to Annex 27).
- **1.8.11** Despite the fact that IMO resolution A.1120(30), in the requirements to survey, refers to the particular convention or code, it shall be taken into consideration that, in general, the resolution does not specify the differences as regards the year of the ship's construction. Thus, when the particular requirements apply, it shall be taken due care, especially when the amendments apply only to ships constructed after the particular date.
  - **1.8.12** A number of regulations and provisions of Conventions and Codes such as:

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reg. I/14 (g) SOLAS-74 as amended; article 19(7) LL-66/88; reg. 10.7 Annex I, MARPOL 90/04; reg 10.7 Annex II MARPOL 90/04; reg. 8.7 Annex IV MARPOL 90/04; reg. 9(7) Annex VI, MARPOL 90/04; reg. 1.5.6.7 the IBC-83/90/04; and reg. 1.6.6.7 the BCH-85/90/00
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permit Flag State MA to waive the requirement that a certificate issued following a renewal survey that is completed after the expiry of the existing certificate shall be dated from the expiry date of the existing certificate. The special circumstances when this could be permitted are where the ship has been laid-up or has been out of service for a considerable period because of a major repair or modification. Whilst the renewal survey would be as extensive as if the ship had continued in service, the Flag State MA shall consider whether additional surveys or inspections are required depending on how long the ship was out of service and the measures taken to protect the hull and machinery during this period. Where this regulation is invoked, it is reasonable to expect an inspection of the outside of the ship's bottom to be held at the same time as the renewal survey when it would not be necessary to include any special requirements for cargo ships for the continued application of regulation I/10 (a)(v), SOLAS 74/78/88/00.

- **1.8.13** If the survey shows that condition of a ship or its equipment and outfit principally does not comply with the data of the Certificate or the ship is not ready for sea without danger being incurred to the ship or people on board or creating an unjustified threat to the environment, the attending RS surveyor shall be guided by the requirements of regulation I/6 c) of SOLAS-74/88, Annex I/6.3.3 to MARPOL 73/78, Annex II/8.2.5 to MARPOL 73/78, Annex IV/4.5 to MARPOL 73/78, Annex VI/5.3.3 to MARPOL 73/78, regulation 1.5.1.4 of the IBC Code-83/90/00, regulation 1.4.1.4 of the IGC Code-83/90/00 and regulation 1.6.1.3 of the BCH Code-85/90/00 or, in case of the BWM Convention, when the survey shows that the ship's ballast water management does not comply with the data specified in the Certificate as required by regulations E-2 or E-3, or the ship is not fit for going out to sea without danger being incurred to the ship or people on board or creating an unjustified threat to the environment, the attending RS surveyor shall be guided by regulation E-1.6 of the BWM Convention.
- **1.8.13.1** As per the documents mentioned in 1.8.13, the corrective actions shall be taken immediately, and the Flag State MA shall be notified accordingly (refer to Agreements, etc.). Unless the corrective actions are not taken, the appropriate Certificate shall be terminated, and the Flag State MA shall be immediately notified. When the ship is in the port of the other Party, the relevant port state authorities shall be also notified immediately.
- **1.8.13.2** Despite the fact the Polar Code does not contain the particular requirements as regards the further actions, if it has been detected by the survey that the condition of the ship or its equipment does not comply with the data of the Polar Ship Certificate or the ship is not ready for service in the polar waters

without danger being incurred to the ship or people on board or creating an unjustified threat to the environment, the attending RS surveyor or a recognized organization shall be guided by the provisions of 1.8.13.1.

The validity of the Polar Ship Certificate does not affect the validity of other Certificates.

- **1.8.13.3** Despite the fact that LL- 66/88 does not contain the particular requirements as regards the further actions, if it has been detected by the survey that the condition of the ship or its equipment does not comply with the data of the Polar Ship Certificate or the ship is not ready for service in the polar waters without danger being incurred to the ship or people on board or creating an unjustified threat to the environment, the attending RS surveyor or a recognized organization shall be guided by the provisions of 1.8.13.1.
- **1.8.13.4** If the survey shows that condition of ship or its equipment and outfit complies to a major degree with the data of the Certificate or the ship is for sea without danger being incurred to the ship or people on board or creating an unjustified threat to the environment, but there are deficiencies that can not be eliminated during the survey, the attending RS surveyor shall be guided by the provisions of 4.2.3 and the following basic principles:
- .1 a requirement containing the appropriate data and indicating the date of its elimination shall be imposed and provided on board the ship. When it is required by the Flag State MA, the appropriate certificates shall be issued with the proper validity dates; and
- .2 when it is required by the Flag State MA, the appropriate certificates shall be issued with the proper validity dates. In compliance with the agreement between MA and RS/attending surveyor, the Flag State MA shall be properly notified.
- 1.8.14 Surveys of ships on behalf of the Flag State MA in accordance with the applicable requirements of conventions, codes, the Rules for the equipment of Sea-Going ships shall be carried out by the exclusive RS surveyors. If during surveys of ships on behalf of the Flag State MA, the RS surveyor accepts results of services performed by service suppliers, listed in Section 8, Part I "General Regulations for Technical Supervision" of the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships, and authorizations of the relevant Flag State MA are available (the flag of the ship on which the servicing shall be done or the service equipment shall be used), such organizations shall be verified and recognized by Register. For such services Register may accept the approvals done:

by Flag State MA;

by other recognized organizations duly authorised and acting on behalf of the Flag State MA. When assigning a service supplier, having recognition certificate of another recognized organization, the shipowner or company representative, responsible for ship safety management, shall acknowledge the requirements of the relevant Flag State MA subject to service suppliers and verify the possibility to perform work on board the ship by the chosen service supplier.

During the ship survey, the RS surveyor shall verify information on organization recognized by the Flag State MA (the RS Internal Web-Site/International Department/Maritime Administrations/[Name of administration/recognized organizations), as well as follow the instructions of the relevant Flag State MA with regard to services rendered by service suppliers (the RS Internal web-site/Ships in Service Division/MA additional requirements). If any deficiencies are found, the RS surveyor shall immediately apply to RHO for a decision making;

by other organizations those are acceptable to the Flag State MA (e.g. Flag State MA of other governments — parties of relevant international conventions). When choosing a service supplier, having recognition of another Flag State MA, a shipowner or representative of Company, responsible for safety management, shall clarify the requirements of relevant Flag State MA subject to service suppliers and the possibility to carry out work on board the ship by the chosen service supplier.

- **1.8.15** When carrying out surveys of shipborne radio equipment one shall be guided by the following provisions.
- **1.8.15.1** Survey of shipborne radio equipment shall consist of two stages: the first stage "Examination/Testing" shall be performed by the firm recognized by the Register; the second stage "Survey" by properly qualified Surveyor to the Register having the qualification of radio engineer or radio surveyor.

- **1.8.15.2** Test of radio equipment shall be performed by the firm recognized by the Register for carrying out activities with code 22006002MK within the time periods specified below, but in any case prior to survey of radio equipment performed by the Surveyor to the Register:
  - .1 testings prior to periodical surveys within 3 months before or after the anniversary date;
- **.2** testings prior to renewal surveys within 3 months before the date of completion of renewal survey.
- **1.8.15.3** Examination of radio equipment including instrumental test of radio equipment for serviceability shall be performed by the recognized firms in the scope prescribed by 2.1.3, 2.1.4 or 4.1.3 except for issuance of the relevant certificate.
- **1.8.15.4** Upon the results of performed testing the recognized firm shall issue Report on Examination of Ship's Safety Radio Equipment (GMDSS) (hereinafter referred to as the Report) in the established by the Register form which shall contain the following:
- .1 confirmation that the list of radio equipment determined for the sea areas complies with the Ship's Station Radio Licence, requirements of international conventions and/or the RS rules, as well as additional requirements of Flag State MA;
- .2 description of actual technical condition of the whole list of radio equipment including additional equipment, sources of power and relevant signaling system;
  - .3 identified non-conformities to the set requirements;
  - .4 recommendations on possible issue or confirmation of relevant certificates.
- **1.8.15.5** Rectification of non-conformities/deficiencies (if any) found during the instrumental test of radio equipment for serviceability shall be confirmed with a relevant note to be made in the Report by the recognized firm. Rectification of non-conformities/deficiencies other than those identified during the instrumental test of the radio equipment for serviceability may be confirmed with a relevant note to be made in the same Report by Surveyor to the Register performing the survey. Recommendations on possible issue or confirmation of a certificate shall be made only after rectification of all identified deficiencies.
- **1.8.15.6** If there are no firms recognized by the Register for carrying out activities with code 22006002MK in the area of ship operation then the examination of radio equipment may be performed as an exception by the firm recognized by ACS IACS member. The preliminary agreement on this matter with the Register refers to the responsibility of the Shipowner who shall in due time apply to RHO submitting a copy of Recognition Certificate issued by ACS. Upon results of such testing performed by the firm the Report shall be issued in the form established by the Register.
- **1.8.15.7** Survey of radio equipment for renewal or confirmation of relevant certificate shall be performed by the exclusive Surveyor to the Register trained as radio inspector or radio engineer. Survey shall be carried out in accordance with the check list in the form established by the Register and consist of the following stages:
- .1 checking the fact that the examination of GMDSS equipment was performed by the recognized firm in due dates;
- .2 reviewing the Report drawn up by the recognized firm for completeness of information and provision of recommendations on possible issue or confirmation of relevant certificates;
- .3 confirmation of rectification of deficiencies (if any) other than those identified during the instrumental test of radio equipment for serviceability;
- .4 checking the GMDSS equipment fitted on board the ship using the information given in the Report of the recognized firm;
- .5 supervision of GMDSS equipment inspection in the scope of mandatory periodical testing performed by crew members who deal with radio communication;
- .6 verification of radio log or entries made in the ship's log book related to radio communication (for sea areas A1, A1 and A2);
- .7 checking the availability of valid documents related to renewal or confirmation of certificates (Ship's Radio Station Licence, agreement for shore-based maintenance, the International Telecommunication Union up-to-date publications, other documents and statutory certificates within the scope of harmonized system, etc.).

- **1.8.15.8** Upon successful results of survey of GMDSS equipment, the Surveyor to the Register renews or confirms relevant certificate.
- **1.8.16** The survey of the automatic identification system shall always be carried out by a qualified radio Surveyor who has necessary knowledge of the requirements of the 1974 SOLAS Convention, the International Telecommunication Union's Radio Regulations and the associated performance standards for radio equipment. July 1, 2012 introduced mandatory annual checks (testing) of the Automatic Identification System (AIS). Prior to the passenger ship or the cargo ship safety equipment survey by the RS surveyor, the AIS equipment shall be required to be checked (tested) by the firms recognized by the Register along with the provisions specified in 1.8.15.1 and 1.8.15.2. Frequency, procedure and scope of the AIS equipment testing are defined in detail in the Circular IMO MSC.1/Circ. 1252 "Guidelines on annual testing of the Automatic Identification System (AIS)." According to the results of the testing carried out the recognized firms must issue the AIS test report on the unified form set out in the appendix to the IMO Circular MSC.1/Circ. 1252. The existence of this document on board shall be observed by port authorities.
- **1.8.17** All oil tankers, for which Annex I of MARPOL 73/78 is applicable, all chemical tankers for which IBC-83/90/00 and BCH-85/90/00 are applicable, all gas carriers, carrying liquefied gases in bulk and for which IGC-83/90/00 or GC are applicable, shall be provided with the approved by the Register the stability instrument in accordance with IMO resolutions MSC.369(93), MSC.370(93) MSC.376(93), MSC.377(93), MEPC.248 (66), MEPC.249(66), MEPC.250(66). Survey of the stability instrument shall be done in accordance with the provisions of 2.2.2.5 of Part II "Survey Schedule and Scope" of the Rules and the RHO instruction letters.
- **1.8.18** The Register is not supposed to issue certificates drawn up in compliance with the provisions of international conventions, agreements, IMO codes, irrespective of whether the Flag State is a member of the European Union or not, to ships with lost class or during their transfer of class, without consultation with the Flag State Maritime Administration for the purpose of determining the necessity to carry out the overall inspection of the ship (to the extent of survey, in order to issue a relevant statutory certificate).
- **1.8.19** In accordance with regulations XIV/2.1 and 3.1 of SOLAS-74/88, Annex I/47 to MARPOL 73/78, Annex II/22 to MARPOL 73/78, Annex IV/18 to MARPOL 73/78 and Annex V/14 to MARPOL 73/78, the Polar Code is a standalone instrument, providing requirements additional to SOLAS-74/88 and MARPOL 73/78 for ships intended to operate in the polar waters. The requirements of the Polar Code shall be surveyed in the context of the surveys under SOLAS-74/88 and MARPOL 73/78, but do not form separate survey types.
- **1.8.19.1** For MARPOL Annexes I and II, (refer also to UI of regulation XIV/2.2 of SOLAS-74/88 and 1.3.2 and 1.3.6, Part I-A of the Polar Code (MSC.1/Circ.1562)), the compliance with the Polar Code shall be indicated on the International Oil Pollution Prevention Certificate and, where applicable, the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk. For SOLAS 74/88, the Polar Ship Certificate shall be issued (Polar Code, paragraph 1.3) and endorsed for compliance with the Polar Code. The Polar Ship Certificate shall be perceived as a certificate additional to SOLAS certificates for ships intended to operate in polar waters, and the validities of other certificates are not affected by it when a ship stays outside of polar areas.
- **1.8.19.2** In the event the Polar Ship Certificate has ceased to be valid or has expired for a period of time and other certificates remain valid, the Flag State MA may require, as deemed appropriate, a survey which addresses only the survey items additional to the survey items under the related SOLAS-74/88 certificates for reinstating the validity of the Polar Ship Certificate. The duration of the related SOLAS-74/88 certificates shall remain unchanged.
  - **1.8.19.3** the survey requirements are specified in Chapter 2.7 of this Part.
  - **1.8.20** Surveys required after transfer of the ship to the flag of another State.

The certificates cease to be valid when a ship transfers to the flag of another State and it is required that the Government of the State to which the ship transfers shall not issue new certificates until it is fully satisfied that the ship is being properly maintained and that there have been no unauthorized changes made to the structure, machinery and equipment. The Government of the State whose flag the ship has been formerly entitled to fly shall be obliged to forward, as soon as possible, to the new Flag State MA copies of certificates carried by the ship before the transfer and, if available, copies of the relevant survey reports and records, such as record of safety equipment and conditions of assignment for load line.

When fully satisfied by an inspection that the ship is being properly maintained and that there have been no unauthorized changes, in order to maintain the harmonization of the surveys the new Flag State MA may give due recognition to initial and subsequent surveys carried out by, or on behalf of, the former MA and issue new certificates having the same expiry date as the certificates that have been ceased to be valid because of the change of flag.

When carrying out the survey due to transfer of flag, one shall be guided by the provisions of 4.2. During the survey by the Register, the provisions of the Code for Recognized Organizations (MSC.349 (92), as amended, shall be observed.

#### 1.8.21 Check of changes.

During the survey it shall be checked whether any new materials, equipment have been installed on board the ship and, if installed, the confirmation of the fact that they were approved prior to the installation and the used materials do not contain asbestos and any changes are recorded in the appropriate certificate and in Record of Approved Ship Safety Equipment (Form 4.1.2), as applicable.

The RS surveyor shall make sure that new materials and equipment are provided with the asbestos-free declarations (refer to Annex 48, IACS Recommendation No.130)

#### 1.9 EXTENSION OF DOCUMENTS

1.9.1 If at the time of expiration of certificates issued upon the basis of SOLAS-74 as amended, MARPOL 73/88, LL-66/88, the ship is not in the port in which it shall be surveyed, the term of validity of the certificate may be extended by the Flag State Administration (embassy or consulate). Such extension is granted only in order that the ship be capable to complete its voyage to the port in which it shall be surveyed and only in those cases when such extension is found to be necessary and justified. No certificate shall be extended for a period exceeding 3 months. However such extension does not provide the right to the ship arriving in the port in which it shall be surveyed to leave it without a new certificate.

If a ship is in a port where the required survey cannot be completed, and where the Convention allows the Flag State Maritime Administration to extend the certificate when it is proper and reasonable to do so, the Flag State Maritime Administration shall be guided by the following:

- .1 an additional survey, equivalent to at least the same scope of an annual survey required by the relevant certificate(s) shall be carried out;
  - .2 the renewal survey shall be carried out to the maximum extent possible;
- .3 in cases where a dry docking is required, but cannot be carried out, an underwater inspection of the ship's bottom shall be carried out;
- .4 in cases where an underwater inspection is not possible (e.g., poor water visibility, draft restrictions, excessive current, refusal by the port Authority), an internal inspection of the ship's bottom structure, to the maximum extent practicable, shall be carried out;
- .5 the ship shall be allowed to sail directly to a named final agreed cargo discharge port and then directly to a named agreed port to complete the survey and/ or dry docking;
- .6 the extension period shall be for the minimum amount of time needed to complete the survey and/or dry docking under the relevant certificate(s);
- .7 the condition of the ship found by the surveys indicated above shall be considered in determining the dura-tion, distance and operational restrictions, if any, of the voyage needed to complete the survey and/ or dry docking; and
- .8 the extension period of the relevant statutory certificate(s) shall not exceed the period of validity of the certificate which may be issued to document compliance with the structural, mechanical and electrical requirements of the recognized classification society.
- 1.9.2 Upon expiry date of the certificates issued on the basis of SOLAS-74 as amended, LL-66/88 and MARPOL 73/78 to the ship engaged on short international voyages (such voyages where neither the distance from the port in which the voyage begins and the final port of destination nor the return voyage exceeds 1000 miles) the term of Safety Certificate may be extended for a grace period up to 1 month.

**1.9.3** Extension of the Cargo Ship Safety Construction Certificate is made for the same period and on the same conditions as extension of the Classification Certificates.

#### 1.10 CONFIRMATION OF DOCUMENTS

- **1.10.1** Certificates issued on the basis of SOLAS-74 as amended, LL-66/88 and MARPOL 73/78 shall be confirmed at mandatory annual and intermediate surveys.
- **1.10.2** Statutory certificates cease to be valid if the periodical, intermediate or annual survey, as appropriate, or the inspection of the outside of the ship's bottom is not completed within the periods specified in the relevant regulation or article. The certificate which is no longer valid shall be cancelled.
- **1.10.3** After carrying out the above mentioned surveys, a new certificate shall be issued, retaining the period of validity and time periods for the ship's submitting to the annual/periodical/intermediate surveys, and with the record of all the prescribed surveys carried our earlier.
- **1.10.4** The Flag State MA shall be informed, without delay, by RHO about each case of such kind for taking preventive measures.

# 1.11 ISSUE OF CERTIFICATES OF SHIPS REGISTERED IN STATES WHICH ARE NOT PARTIES TO THE INTERNATIONAL CONVENTIONS OR WHICH ARE NOT COVERED BY THE PROVISIONS OF THE INTERNATIONAL CONVENTIONS, OR TO WHICH INTERNATIONAL CERTIFICATES ARE NOT REQUIRED

- **1.11.1** Standard statutory certificates may be issued to the ships of states which are not parties to the international conventions but which comply with their requirements. It is necessary to make the following note in the upper right corner of such documents: "Document of Compliance for non-Signatory Convention Ship". The word "International" (if any) shall be stricken through in the heading of the Certificate.
- **1.11.2** Standard statutory Certificates may be issued to the ships of states which are not covered by the provisions of the international conventions but which comply with their requirements. It is necessary to make the note in the upper right corner of such Certificates: "Document of Compliance for non-Convention Ship." The word "International" (if any) shall be stricken through in the heading of the Certificate.
- 1.11.3 Standard statutory Certificates may be issued to the ships to which international certificates are not required under the international conventions but which comply with their requirements. It is necessary to make the note in the upper right corner of such Certificates: "Document of Compliance for Ship to which International Certificate is not Required." The word "International" (if any) shall be stricken through in the heading of the Certificate.
- **1.11.4** Certificates referred to in the present Chapter may be issued only upon authorisation of the Maritime Administration of the state, which flag the ship flies.

### 1.12 DRAWING UP OF THE CERTIFICATES REQUIRED BY THE INTERNATIONAL CONVENTIONS FOR THE SHIPS WITH THE CLASS OF THE RUSSIAN RIVER REGISTER

- **1.12.1** If Owners of ships with the class of the Russian River Register apply to the RS Branch Offices to obtain certificates required by the international conventions, the RS Branch Offices shall apply to RHO for the required instructions and recommendations.
- **1.12.2** If statutory certificates are drawn up for the ships of the river-sea navigation with the class of the Russian River Register, it is necessary to carry out survey within the scope required to assure that the said ships comply with the requirements of the international conventions, and by the use of methods prescribed by the RS normative documents.

# 2 SURVEY OF SHIPS IN ACCORDANCE WITH THE INTERNATIONAL CONVENTIONS, CODES AND RESOLUTIONS OF IMO

#### 2.1 SURVEY OF SHIPS IN ACCORDANCE WITH SOLAS-74 AS AMENDED

#### 2.1.1 Survey for issue of the Cargo Ship Safety Equipment Certificate/SE.

**2.1.1.1** The scope of the ship survey is set in compliance with IMO resolution A.1120(30). During the survey of life-saving appliances one shall be guided by the provisions of 4.1.1.

As regards the lifeboat release-and-retrieval system, the following shall be taken into consideration: in compliance with reg. III/1.5 of SOLAS-74 as amended, and due regard to the provisions of the IMO Circular MSC.1/Circ.1392, thorough inspection of the system determined to be compliant or, where required, replacement or modification of the system identified as non-complying with the LSA Code (4.4.7.6.4-4.4.7.6.6) shall be carried out during the first survey of the ship in dry dock after 01.07.2014, but no later than 01.07.2019. Information regarding the compliance/required modification or non-compliance of the system is given in the IMO database GISIS in the section "Evaluation of hooks". Where the system replacement is required, upon replacement the Statement of Acceptance of the Installation of Replacement Release and Retrieval System to an Existing Lifeboat (Form 4.1.9) shall be issued by the RS surveyor.

In case of satisfactory results of the initial/renewal/annual survey, upon completion thereof, the Cargo Ship Safety Equipment Certificate shall be issued together with the Record of Equipment (Form E).

#### 2.1.2 Survey for issue of the Cargo Ship Safety Construction Certificate/SC.

#### 2.1.2.1 The scope of the ship survey is set in compliance with IMO resolution A.1120(30)».

During the survey of ships (ESP) the provisions shall be observed of the International Code on the Enhanced Programme of Inspections during Surveys of Bulk Carriers and Oil Tankers (IMO Assembly resolution A.1049(27), as amended — MSC.371(93), MSC.381(94), Cor. 1 to MSC.381(94), MSC.405 (96), MSC.412(97), Corrigenda 1 and Corrigenda 2 to the ESP Code). The provisions of ship survey (ESP) are given in the appropriate sections 1 — 6, Part III "Additional Surveys of Ships Depending on Their Purpose and Hull Material" of the Rules (in compliance with the provisions of IMO Assembly resolution A. 1049(27) as amended).

In case of satisfactory results of the initial/renewal/annual survey, upon completion thereof, the Cargo Ship Safety Construction Certificate shall be issued/renewed/confirmed.

- 2.1.2.2 Inspection of the outside of the ship's bottom of cargo ships.
- 2.1.2.2.1 Inspection of the outside of the ship's bottom of cargo ships the shall consist of:
- .1 examination of the ship's shell, including bottom and bow plating, keel, bilge keels, stem, stern frame and rudder;
  - .2 noting the clearances measured in the rudder bearings;
  - .3 examination and/ or test of the propeller and shaft seals, as far as practicable;
  - .4 noting the clearances measured in the propeller shaft, as far as practicable;
  - .5 examination of sea chests and strainers;
  - .6 the survey of related items inspected at the same time.
- **2.1.2.2.2** For the inspection of the outside of the ship's bottom of cargo ships the completion of the inspection shall consist of:
  - .1 after a satisfactory survey, the Cargo Ship Safety Construction Certificate shall be endorsed;
  - .2 if a survey shows that the condition of a ship or its equipment is unsatisfactory (see 4.2.3).
- 2.1.2.3 For Register-classed ships flying the flag of the Russian Federation of restricted navigation areas RI, R2, R2-RSN, R2-RSN (4,5), R3-RSN and R3 as well as with the class of the Russian River Register engaged on international voyages, in addition to the Cargo Ship Safety Construction Certificate,

Register shall issue the Supplement (Form 2.1.9.3-1) in which restrictions for ship operation areas and navigation conditions are stated. Such practice is approved by IMO and does not require additional agreement or issue of Exemption Certificate. The Supplement shall be issued for a ship with a copy of Circular Letter No. 2014 dated 31.10.1997 of IMO MSC No. 2016 of 31.10.1997 (refer to Appendix 16). For ships flying the flags other than those of the Russian Federation including ships included in convention records of RS with similar restrictions for operation areas, the mentioned Supplement to the Cargo Ship Safety Construction Certificate shall be issued subject to appropriate authorization of the Flag State MA. The Supplement shall be issued for a ship with a copy of authorization of the Flag State MA. The Supplement to the Cargo Ship Safety Construction Certificate shall be issued for a ship together with a copy of authorization of the Flag State MA. The List of Flag State MA delegated these authorities to RS is given in the Instructions for filling-in of Form 2.1.9.3-1 in the RS internal procedures.

#### 2.1.3 Survey for issue of the Cargo Ship Safety Radio Certificate/SR.

2.1.3.1 The scope of the ship survey is set in compliance with IMO resolution A.1120(30).

In case of satisfactory results of the initial/renewal/periodical survey, upon completion thereof, the Cargo Ship Safety Radio Equipment Certificate with the Record of Equipment (Form R) shall be issued/renewed/confirmed.

#### 2.1.4 Survey for issue of the Passenger Ship Safety Certificate/SP.

**2.1.4.1** The scope of the ship survey is set in compliance with IMO resolution A.1120(30).

During the renewal survey of passenger ships carrying over 36 passengers and constructed before 01 October 1994, it is necessary to check compliance with the provisions of reg. II-2/41-1 and SOLAS - 74/88 as amended by IMO resolution MSC.24(60)).

As regards the lifeboat release-and-retrieval system, the following shall be taken into consideration: in compliance with reg. III/1.5 of SOLAS-74 as amended, and due regard to the provisions of IMO Circular MSC.1/Circ.1392, thorough inspection of the system determined to be compliant or, where required, replacement or modification of the system identified as non-complying with the LSA Code (4.4.7.6.4 - 4.4.7.6.6) shall be carried out during the first survey of the ship in dry dock after 01.07.2014, but no later than 01.07.2019. Information regarding the compliance/required modification or non-compliance of the system is given in the IMO database GISIS in the section "Evaluation of hooks". Where the system replacement is required, upon replacement the Statement of Acceptance of the Installation of Replacement Release and Retrieval System to an Existing Lifeboat shall be issued by the RS surveyor (Form 4.1.9).

In case of satisfactory results of the initial/renewal survey, upon completion thereof, the Passenger Ship Safety Certificate shall be issued together with the Record of Equipment (Form P).

# 2.1.5 Survey for issue of the Certificate of Compliance with the Special Requirements for Ship Carrying Dangerous Goods.

- **2.1.5.1** Survey for issue, renewal and endorsement of documents on fitness of ship for the carriage of dangerous goods consists in checking the compliance with the special requirements of Chapter II-2 of the Convention SOLAS-74/78/88/00, applicable provisions of the IMDG Code and IMSBC Code with testing, if necessary, and checking the systems, equipment and outfit in operation (refer to Section 7, Part VI "Fire Protection") of the Rules for Construction and Annex 5 to these Guidelines).
- **2.1.5.2** The following items are liable to check: fixed gas fire-extinguishing system for cargo spaces, water fire main system, sources of ignition in cargo spaces (electrical equipment, cabling, etc.), detection system in cargo spaces, ventilation of cargo spaces, bilge pumping system, personnel protection means, additional portable fire extinguishing means, insulation of boundaries of machinery spaces, pressure water-spraying system in cargo spaces of ro-ro ships and other shipboard equipment and outfit required for safe carriage of dangerous goods.
- **2.1.5.3** Fitness of the ship for the carriage of dangerous goods is determined by the Register based on the survey of ship for compliance with the requirements of SOLAS-74, as amended, IMDGC Code, IMSB Code (as applicable) and national requirements of the Flag State MA (where available), the RS rules.
- **2.1.5.4** After the satisfactory survey, the Surveyor, upon the Shipowner's request, draws up and issues to the ship documents listed in 2.1.5.4.1 to 2.1.5.4.5 which confirm fitness of the ship for the carriage of dangerous goods.

- **2.1.5.4.1** The Certificate of Compliance with the Special Requirements for Ship Carrying Dangerous Goods (Form 2.1.17.1) is drawn up and issued to ships carrying dangerous goods classified in accordance with regulation 1 Part A, Chapter VII of SOLAS-74, except for cargoes of classes 6.2 and 7, if this is:
- a passenger ship which keel was laid or which was at the similar stage of construction from 1 September, 1984, till 1 July, 2002;
- a cargo ship of 500 gross tonnage and upwards, which keel was laid or which was at similar stage of construction from 1 February, 1984, till 1 July, 2002;
- a cargo ship of less than 500 gross tonnage, which keel was laid or which was at similar stage of construction from 1 February, 1992 till 1 July 2002.

For the above ships carrying or intended for the carriage of solid bulk cargoes presenting chemical hazard, listed in IMSBC Code, the Certificate of Compliance (Form 2.1.17.1) is not drawn up if such cargoes are not classified in accordance with regulation 1 Part A, Chapter VII of SOLAS-74 or they are cargoes of class 6.2 and 7.

The Document of Compliance (Form 2.1.17.1) may be drawn up and issued to a ship not mentioned above, provided that the ship structure, equipment and outfit comply with the special requirements of regulation 54, Chapter II-2 of SOLAS-74/00.

**2.1.5.4.2** The Certificate of Compliance with the Special Requirements for Ship Carrying Dangerous Goods (Form 2.1.17) is drawn up and issued to ships carrying dangerous goods in packaged form and in solid form in bulk which are classified in accordance with regulation 1 Part A and regulation 7 Part A-1, Chapter VII of SOLAS-74, except for cargoes of classes 6.2 and 7, provided that this is a ship which keel was laid or which was at similar stage of construction on 1 July, 2002, or after this date.

The Document of Compliance (Form 2.1.17.1) is drawn up and issued to ships intended for the carriage of packaged dangerous goods, except when carrying dangerous goods in limited quantities (refer to 3.4 of IMDG Code) and excepted quantities (refer to 3.5 of IMDG Code) in accordance with regulation 19.3, Chapter II-2 of SOLAS-74/00, not later than the date of the first renewal survey on or after 1 January 2011:

- .1 cargo ships of 500 gross tonnage and upwards and passenger ships the keels of which were laid or which were at a similar stage of construction on or after 1 September 1984, but before 1 January 2011; and
- .2 cargo ships of less than 500 gross tonnage the keels of which were laid or which were at a similar stage of construction on or after 1 February 1992, but before 1 January 2011, and notwithstanding these provisions:
- .3 cargo ships of 500 gross tonnage and upwards and passenger ships the keels of which were laid or which were at a similar stage of construction on or after 1 September 1984, but before 1 July 1986 need not comply with regulation 19.3.3 provided that they comply with regulation 54.2.3, Chapter II-2 of SOLAS Convention, as amended, which was adopted by resolution MSC.1(XLV);
- .4 cargo ships of 500 gross tonnage and upwards and passenger ships the keels of which were laid or which were at a similar stage of construction on or after 1 July 1986, but before 1 February 1992 need not comply with regulation 19.3.3 provided that they comply with regulation 54.2.3, Chapter II-2 of SOLAS Convention, as amended, which was adopted by resolution MSC.6(48);
- .5 cargo ships of 500 gross tonnage and upwards and passenger ships the keels of which were laid or which were at a similar stage of construction on or after 1 September 1984, but before 1 July 1998 need not comply with regulations 19.3.10.1 and 19.3.10.2; and
- .6 cargo ships of less than 500 gross tonnage the keels of which were laid or which were at a similar stage of construction on or after 1 September 1992, but before 1 July 1998 need not comply with regulations 19.3.10.1 and 19.3.10.2.

While drawing up the Document of Compliance with the Special Requirements for Ship Carrying Dangerous Goods (Form 2.1.17.1), the Check List on Examination of the Special Requirements for Ship Carrying Dangerous Goods (Form 6.1.27), Report on Statutory Surveys of the Ship (Form 6.1.02) or Ship's survey statement (Form 6.1.03).

The Document of Compliance with the Special Requirements for Ship Carrying Dangerous Goods (Form 2.1.17) may be drawn up and issued to ship not mentioned above, provided that the ship structure, equipment and outfit comply with the special requirements of regulation 19, Chapter II-2 SOLAS-74/00.

**2.1.5.4.3** The Certificate of Fitness of the Ship for the Carriage of Dangerous Goods (Form 2.1.22) is drawn up and issued to ships not mentioned in 2.1.5.4.1 and 2.1.5.4.2 and not fully complying with the requirements of regulation 54, Chapter II-2 of SOLAS-74/81 or regulation 19, Chapter II-2 of SOLAS-74/00, which carry packaged dangerous goods, except for cargoes of classes 6.2 and 7, provided that the ship structure, equipment and outfit comply with applicable requirements ensuring safe carriage of specific dangerous goods.

The Certificate of Fitness of the Ship for the Carriage of Dangerous Goods (Form 2.1.22.1, for ships under the flag of Malta — Form 2.1.22.1m) is drawn up and issued to ships carrying packaged dangerous goods of classes 6.2 and 7, provided that the ship structure, equipment and outfit comply with applicable requirements ensuring safe carriage of such goods.

While drawing up certificates (Form 2.1.22 or Form 2.1.22.1 (2.1.22.1m)) the Surveyor also draws up the Report on Survey of the Ship (Form 6.3.10).

- **2.1.5.4.4** The Register documents confirming compliance with the requirements of the BC Code (refer to 2.1.12 of the present Part) are drawn up for ships carrying or intended to carry solid bulk cargoes pre-senting chemical hazard which are listed in Appendix B to IMSBC Code, are listed in group B in Appendix 1 to IMSBC Code and are classified according to regulation 7 Part A-1, Chapter VII of SOLAS-74 or as materials hazardous only in bulk (MHD).
- **2.1.5.4.5** Documents and certificates (Forms 2.1.17, 2.1.17.1, 2.1.22 and 2.1.22.1) may be drawn up and issued to foreign ships, if the results of survey are satisfactory, provided there are no special instructions of the Flag State MA.

The Report on Survey of the Ship (Form 6.3.10) may be drawn up for the ship if there are special instructions from the Flag State MA (national rules or requirements) in respect of the carriage of particular class of dangerous goods.

- **2.1.5.4.6** For ships carrying the cargo of packaged irradiated nuclear fuel, plutonium and high-level radioactive wastes, the International Certificate of Fitness for the Carriage of INF Cargo (Form 2.1.5) may be drawn up and issued provided that the ship complies with the requirements of 7.3 Part VI "Fire Protection" of the Rules for Construction and applicable requirements of the IMDG Code.
- **2.1.5.4.7** For ships complying with the requirements of Part D Chapter 7 of the International Code of Safety for High-Speed Craft, 2000, as amended, built on or after 1 July 2002, if they carry dangerous cargoes classified according to regulation 1 Part A of the IMDG Code, except cargoes of classes 6.2 and 7, the Certificate of Compliance with the Special Requirements for High Speed Craft Carrying Dangerous Goods (Form 2.1.17HS) is drawn up (refer to MSC/Circ.1266, resolutions MSC.269(85), MSC.271(85).
- 2.1.6 Survey for issue of Special Purpose Ship Safety Certificate in accordance with the Code of Safety for Special Purpose Ships, 2008.
  - **2.1.6.1** Preamble.
- **2.1.6.1.1** The Code of Safety for Special Purpose Ships, adopted by IMO resolution MSC.266(84) (hereinafter referred to as, the 2008 SPS Code), has replaced the Code of Safety for Special Purpose Ships, adopted by the Assembly resolution A.534(13) and came into force on 01.07.1986 (hereinafter, the SPS Code) to apply it to special purpose ships which receive certificates on 13.05.2008 and after this date. The 2008 SPS Code was adopted to bring it up to date with amendments to SOLAS and to include training ships, whether or not covered by the application of requirements of SOLAS-74, as amended.

The possibility of application of the SPS Code to special purpose ship constructed prior to 13 May 2008, shall be reviewed by the RHO on agreement with the flag state MA in each particular case.

- **2.1.6.1.2** The 2008 SPS Code has been developed to provide an international standard of safety for special purpose ships of new construction, the application of which will facilitate operation of such ships and result in a level of safety for the ships and their personnel equivalent to that required by the International Convention for the Safety of Life at Sea, 1974.
- **2.1.6.1.3** For the purposes of this 2008 SPS Code, a special purpose ship is a ship of not less than 500 gross tonnage which carries more than 12 special personnel, i.e. persons who are specially needed for the particular operational duties of the ship and are carried in addition to those persons required for the normal navigation, engineering and maintenance of the ship or engaged to provide services for the persons carried on board.

- **2.1.6.1.4** Because special personnel are expected to be able bodied with a fair knowledge of the layout of the ship and have some training in safety procedures and the handling of the ship's safety equipment, the special purpose ships on which they are carried need not be considered or treated as passenger ships.
  - 2.1.6.1.5 In developing the safety standards for this Code it has been necessary to consider:
  - .1 the number of special personnel being carried; and
  - .2 the design and size of the ship in question.
- **2.1.6.1.6** While the 2008 SPS Code has been developed for new ships of 500 gross tonnage and above, Flag State MA may also consider the application of the provisions of the Code to the ships of less than 500 gross tonnage and to those that were constructed before 13 May 2008.
- **2.1.6.1.7** For facilitating the operation of special purpose ships, this 2008 SPS Code provides for a certificate, called a Special Purpose Ship Safety Certificate, which should be issued to every special purpose ship. Where a special purpose ship is normally engaged on international voyages as defined in SOLAS it shall, in addition, also carry SOLAS safety certificates, either:
  - .1 for a passenger ship with a SOLAS-74 as amended Exemption Certificate; or
- .2 for a cargo ship with a SOLAS Exemption Certificate, where necessary, as the Flag State MA deems appropriate.
- **2.1.6.1.8** Noting that the 2008 SPS Code may be readily applied to some ships that carry special personnel on board to which SOLAS-74 as amended does not apply, the Maritime Safety Committee invites Flag State MA to apply the standards of the 2008 SPS Code to such ships to the extent deemed reasonable and practicable.
  - **2.1.6.2** General.
- **2.1.6.2.1** The purpose of the 2008 SPS Code is to recommend design criteria, construction standards and other safety measures for special purpose ships.
  - **2.1.6.2.2** Application.
- **2.1.6.2.2.1** Except as provided in 8.3 (see Annex 12) for a ship carrying 60 persons and more, the 2008 SPS Code applies to every special purpose ship of not less than 500 gross tonnage certified on or after 13 May 2008.

In compliance with 1.2.1, Chapter I of IMO resolution MSC.266(84) RHO as agreed with Flag Sate MA may apply the provisions of the 2008 SPS Code as far as reasonable and practicable to special purpose ships of less than 500 gross tonnage and to special purpose ships constructed before 13 May 2008.

- **2.1.6.2.2.2** This 2008 SPS Code does not apply to ships meeting the 2008 SPS Code for the Construction and Equipment of Mobile Offshore Drilling Units (MODU Code).
- **2.1.6.2.2.3** This 2008 SPS Code is not intended for ships used to transport and accommodate industrial personnel that are not working on board.
- **2.1.6.2.2.4** Upon the appropriate authorization of the Flag State MA, the industrial personnel may be carried on board the special purpose ships meeting the provisions of the 2008 SPS Code or other equivalent requirements as specified in IMO resolution MSC.418(97).
  - 2.1.6.3 Definitions.
- **2.1.6.3.1** For the purpose of this Code, the definitions given hereunder apply. For terms used, but not defined in this Code, the definitions as given in SOLAS apply.
- Length (L) means 96 % of the total length on a waterline of 85 % at the least moulded depth measured from the top of the keel, or the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel, the waterline on which the length is measured should be parallel to the designed waterline. The length (L) shall be measured in meters.
- LSA Code means International Life-Saving Appliance Code, adopted by the Maritime Safety Committee by resolution MSC.48(66), as amended.
- SOLAS-74 as a mended means International Convention for the Safety of Life at Sea, 1974, as amended.
- I M D G C o d e means the International Maritime Dangerous Goods Code, adopted by the Maritime Safety Committee by resolution MSC.122(75), as amended.
  - Organization means the International Maritime Organization.

Passenger means every person other than:

the master and the members of the crew or other persons employed or engaged in any capacity on board a ship on the business of that ship; and

a child under one year of age.

Training programme means a defined course of instruction and practical experience in all aspects of ship operations, similar to the basic safety training as offered by the maritime institutions in the country of the Flag State MA.

Permeability in relation to a space is the ratio of the volume within that space which is assumed to be occupied by water to the total volume of that space.

Special personnel means all persons who are not passengers or members of the crew or children of under one year of age and who are carried on board in connection with the special purpose of that ship or because of special work being carried out aboard that ship. Wherever in this 2008 SPS Code the number of special personnel appears as a parameter, it should include the number of passengers carried on board which may not exceed 12.

Such personnel are expected to be able bodied with a fair knowledge of the layout of the ship and to have received some training in safety procedures and the handling of the ship's safety equipment before leaving port and include the following:

scientists, technicians and expeditionaries on ships engaged in research, non-commercial expeditions and survey;

personnel engaging in training and practical marine experience to develop seafaring skills suitable for a professional career at sea. Such training should be in accordance with a training programme approved by the Flag State MA;

personnel who process the catch of fish, whales or other living resources of the sea on factory ships not engaged in catching;

salvage personnel on salvage ships, cable-laying personnel on cable-laying ships, seismic personnel on seismic survey ships, diving personnel on diving support ships, pipe-laying personnel on pipe layers and crane operating personnel on floating cranes; and

other personnel similar to those referred to above who, in the opinion of the Flag State MA, may be referred to this group.

Special purpose ship means a mechanically self-propelled ship which by its purpose carries on board more than 12 special personnel, including passengers (the number of passengers shall not exceed 12, otherwise the ship shall be considered the passenger one, not a special purpose one). The following ship types are included: research, expedition, hydrographic, drill ships, whale factory vessels, fishing vessel base-ships and other ships used for processing of marine life resources and not engaged in their fishing, salvage ships, cable-laying ships, seismic research vessel, diving ships, pipe lay ships, floating cranes and crane ships.

Breadth (B) means the maximum breadth of the ship, measured amidships to the moulded line of the frame in a ship with a metal shell and to the outer surface of the hull in a ship with a shell of any other material. The breadth (B) should be measured in meters.

Crew means all persons carried on board the ship to provide navigation and maintenance of the ship, its machinery, systems and arrangements essential for propulsion and safe navigation or to provide services for other persons on board.

#### 2.1.6.4 Exemptions.

A ship which is normally engaged as a special purpose and which undertakes an exceptional single voyage as a special purpose ship may be exempted by the Flag State MA from the provisions of the 2008 SPC Code (or the SPC Code, as applicable), provided that it complies with safety requirements which in the opinion of the Flag State MA are adequate for such a single voyage which shall be taken by the ship.

<sup>&</sup>lt;sup>1</sup>Some sail training ships may be classified by the Flag State MA as "not propelled by mechanical means" if fitted with mechanical propulsion for auxiliary and emergency purposes.

#### **2.1.6.5** Equivalents.

- **2.1.6.5.1** Where the 2008 SPS Code requires that a particular fitting, material, appliance, apparatus, item of equipment or type thereof should be fitted or carried in a unit, or that any particular provision should be made, or any procedure or arrangement shall be complied with, the Flag State MA may allow any other fitting, material, appliance, apparatus, item of equipment or type thereof to be fitted or carried, or any other provision, procedure or arrangement to be made in that unit, if it is satisfied by trial thereof or otherwise that such fitting, material, appliance, apparatus, item of equipment or type thereof or that any particular provision, procedure or arrangement is at least as effective as that required by the Code.
- **2.1.6.5.2** When the Flag State MA so allows any fitting, material, appliance, apparatus, item of equipment or type thereof, or provision, procedure, arrangement, novel design or application to be substituted hereafter, it should communicate to the Organization the particulars thereof, together with a report on the evidence submitted, so that the Organization may circulate the same to other Governments for the information of their officers.

#### **2.1.6.6** Surveys.

Every special purpose ship should be subject to the surveys specified for cargo ships, other than tankers, in SOLAS-74 as smended, which should cover the provisions of the 2008 SPS Code.

#### **2.1.6.7** Certification.

- **2.1.6.7.1** A certificate may be issued after survey in accordance with 2.1.6.6 either by the Flag State MA or by any person or organization duly authorized by it. In every case the Flag State MA assumes full responsibility for the certificate.
- **2.1.6.7.2** The Special Purpose Ship Safety Certificate (Form 2.1.27.1) together with the Record of Equipment for the Special Purpose Ship Safety Certificate (Form 2.1.28.1) shall be drawn up in the official language of the issuing country in a form corresponding to the model given in the annex to the 2008 SPS Code. If the language used is neither English nor French, the text should include a translation into one of these languages.
- **2.1.6.7.3** The duration and validity of the Certificate (Form 2.1.27.1) shall be governed by the respective provisions for cargo ships in SOLAS.
- **2.1.6.7.4** If the Certificate (Form 2.1.27.1) is issued for a special purpose ship of less than 500 gross tonnage, this certificate shall indicate to what extent relaxations in accordance with 2.1.6.2 were accepted.
- **2.1.6.7.5** When the application of the SPS Code is agreed (refer to 2.1.6.1.1), the Special Purpose Ship Safety Certificate (Form 2.1.27) shall be issued for the ship together with the Record of Equipment for the Special Purpose Ship Safety Certificate (Form 2.1.28) in compliance with the provisions of the SPS Code and, where required, other documents according to the documents specified by the Flag State MA.
- **2.1.6.8** The inspection of all required documentation on board a special purpose ship includes the inspections specified in 2.1.1 2.1.4, connected with the issuance of Safety Certificates in accordance with SOLAS-74 as smended.

## 2.1.6.9 Upon satisfactory results of the surveys, the following certificates shall be issued to the ship:

- .1 Special Purpose Ship Safety Certificate (Form 2.1.27.1) with Record of Equipment for the Special Purpose Ship (form SPS) (Form 2.1.28.1);
- .2 Ship Safety Certificate in accordance with SOLAS-74, as amended (if the ship is engaged in international voyages).

Where not otherwise stated by the Flag State MA, if the ship is engaged in international voyages, the valid statutory documents shall be issued as follows:

as for the cargo ship (with issuing an Exemption Certificate, where necessary) – for special purpose ships carrying not more than 50 persons as special personnel (not more than totally 60 persons on board the ships constructed after 13 May 2008);

as for the passenger ship – for special purpose ships carrying above 50 persons as special personnel (above totally 60 persons on board the ships constructed after 13 May 2008), provided the requirements for stability, floodability and availability of life-saving appliances as for the passenger ship are observed.

In both cases:

the words "Special Purpose Ship" shall be printed in the upper right corner of the first page of each statutory document issued in compliance with SOLAS-74;

freeboard depth complying with the approved subdivision loadline shall be indicated in the Cargo Ship Safety Construction Certificate or in the Passenger Ship Safety Certificate in compliance with regulation II-1/13, SOLAS-74/78, as amended.

**2.1.6.10** The scope and order of special purpose ships certification is specified in the Instructions for Survey of Special Purpose Ships (refer to Annex 12).

#### 2.1.7 Granting of the exemptions in accordance with SOLAS-74 as smended.

**2.1.7.1** The exemptions in accordance with SOLAS-74 as smended are granted on the basis of the provisions of IMO Circular SLS.14/Circ.115 dated 21 June, 1993.

When ships which proceed not more than 20 miles away from the nearest land, are being issued the Exemption Certificate, the Shipowner shall submit a detailed explanation to prove that the exemptions from application of certain provisions of SOLAS-74 as smended may be granted for such voyages, as prescribed by the relevant requirements of the SOLAS-74 as smended regulations. If the submitted explanation is not duly grounded, has no technical foundation, and is of declarative character arising from financial difficulties of the Shipowner, the RS Branch Office shall put aside such requests, declining them. Whereas the Maritime Administrations of ports of call require for the compliance with the provisions of IMO Circular No.606 concerning duly given notification from the Flag State MA about the intention to have an exemption granted for the ship, the Shipowner submitting the above mentioned explanation to the RS Branch Office shall present also additional information about the ship (type, length, breadth, draught, tonnage, areas of navigation and states of the ports of call). Simultaneously, in any cases, the exemption request shall contain the ship's design number, class and year of construction.

In cases of granted exemptions as per regulations I/4(b) (SOLAS-74), II-1/25-1.3 (Amendments adopted in May 1990), IV/5 (SOLAS-74), IV/3 (Amendments of 1998 on GMDSS), the RS Head Office shall prepare draft information for IMO, submitting it to the Flag State MA for further delivery to IMO.

- 2.1.7.2 Procedure for issue of the Exemption Certificates as per the Forms 2.1.16 and 2.1.16.2.
- **2.1.7.2.1** The Shipowner shall send to the RS Branch Office, wherein the ship is supervised, a request for issue of the Exemption Certificate with a detailed explanation to confirm the provision of safe operation of the ship in the intended area of navigation, provision of safety in the ports of call, and to prove that on all intended voyages the ship will not violate the prescribed areas of navigation.
- **2.1.7.2.2** The RS Branch Office shall consider the request and send it to the RHO together with the conclusion on the possibility to grant an exemption.
- **2.1.7.2.3** RHO shall examine the said documents and send them together with its conclusion to the Flag State MA.
- **2.1.7.2.4** The Flag State MA shall take a decision on the possibility to grant the exemption, where necessary, receive the confirmation from the Flag State MA of the ports of call states and notify RHO about its decision.
- **2.1.7.2.5** Upon receipt of the permit from the Flag State MA, RHO shall send an authorization for issuing the Exemption Certificate to the RS Branch Office, wherein the ship is supervised, or inform the RS Branch Office that it refrains from issue of the Certificate.
- **2.1.7.3** List of provisions of SOLAS-74 and Amendments thereto, in accordance with which the Exemption Certificate shall be issued, if granted by the Flag State MA:

Regulation	Summary
	CHAPTER I (SOLAS-74/78/88)
4(a) 4(b)	A ship engaged in a single international voyage A ship which embodies features of a novel kind
	CHAPTER II-1 (SOLAS-74/78/88/ AMENDMENTS THERETO)
<sup>1</sup> 1(c)/1.4 (1981) <sup>2</sup> -/11.9 (1989) -/12-1.4(89) -/20-1.3 (Oct.1988) -/25-1.3 (May 1990) -/25-9 (May 1990) -/25-10.4 -/53-2.1(1981)	Sheltered nature and conditions of the voyage Stern tubes Double bottoms in cargo ships other than tankers Closure of cargo loading doors Subdivision and damage stability of cargo ships Openings in watertight bulkheads and internal decks in cargo ships External openings in cargo ships Stand-by generator (exemption) CHAPTER II-2 (SOLAS-74/AMENDMENTS THERETO)
1(e)/1.4.1 (1981) -/4.3.4.3 (1981) 48(a)(i)/28.1.1 (1981) 32(a)(iii)/40.2 (1981)/40.2(1989) -/45.1.3 (1981) -/53.1.3 (1996) -/60.4.2 (1981)	Sheltered nature and conditions of the voyage Remote control of fire pumps One means of escape (exemption) Fire detection and alarm system in voyages of short duration One means of escape (exemption) Fire protection arrangements in cargo spaces Inert gas systems for tankers of less than 40 000 tons deadweight.
	CHAPTER III (SOLAS-74/AMENDMENTS THERETO)
3(a)/2.1 (1983) 11(b)/41.8.32(1983) -/21.4.2.2 (1983) -/27.3.2.3 (1983) -/27.3.3.3 (1983) 35(a)(i)/ 5/3.2(88 GMDSS)	Sheltered nature and conditions of the voyage Lifeboat equipment Thermal protection aids Immersion suits Immersion suits Life rafts for cargo ships making voyages between the two nearest neighbouring countries Chapter IV (SOLAS-74/Amendments thereto) Partial or conditional exemption concerning radio equipment (regulation 3, regulations 7 to 11)
CHAPTER IV (SOLAS-74/78/88 AMENDMENTS THERETO)	
5/3.2 (1988, GMDSS)	Partial or conditional exemption of radio equipment (regs. 3, 7 to 11)
CHAPTER V (SOLAS-74/2000 AMENDMENTS THERETO)	
-12(j)(iii)(1981) -/12(u)(1981) -/3.2 -/19.2.4.4	Automatic radar plotting aid Regulation 12 (exemption of partial or conditional nature depending on the voyage) Exemptions granted to individual ships on conditions determined by the Flag State Administration Installation of the AIS equipment on ship, provided that such ship will be taken permanently out of service not later than 31 December, 2006 Installation of VDR on passenger ships constructed before 1 July 2002 where the interfacing a VDR with the existing equipment on the ship is impracticable.
4 in Amendments of 1981 to SO	ans Regulation 1(c) in Chapter II-1 of SOLAS-74, and after the stroke means Regulation II-1/LAS-74/78.  ior to adoption of the Amendments there was no relevant Regulation in SOLAS-74/78/88.

# 2.1.8 Survey for issue of 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.

#### 2.1.8.1 The scope of the ship survey is set in compliance with IMO resolution A.1120(30).

In case of satisfactory results of the initial/renewal/annual survey, upon completion thereof, an International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or Certificate for the Carriage of Dangerous Chemicals in Bulk shall be issued/renewed/confirmed.

# 2.1.9 Survey for issue of the International Certificate of Fitness for the Carriage of Liquefied Gases in Bulk.

#### 2.1.9.1 The scope of the ship survey is set in compliance with IMO resolution A.1120(30).

In case of satisfactory results of the initial/renewal/annual survey, upon completion thereof, an

International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or Certificate for the Carriage of Liquefied Gases in Bulk shall be issued/renewed/confirmed.

#### 2.1.10 Survey for issue of the High-Speed Craft Safety Certificate.

- **2.1.10.1** The present Chapter regulates generally the scope of surveys of ship in service with the aim to issue/endorse the High-Speed Craft Certificate to be issued in order to confirm compliance of the craft with the HSC.
- **2.1.10.2** Examination of current certificates and other records in order to establish compliance with the requirements of the HSC shall consist of:
  - .1 checking that the current Classification Certificate is available on board;
  - .2 checking that the current Load Line Certificate is available on board;
- .3 checking the provision of the Permit to Operate High-Speed Craft issued by the Flag State Administration to certify that:

management of the company operating the craft exercises a close control over its service and maintenance by means of the Quality Management System in accordance with the ISM Code;

management of the company operating the craft shall take care that only the persons having the adequate qualification allowing them to work on a particular craft used for the route intended are to be crew members;

duration of voyages and the worst intended conditions at which the operation of the craft is permitted are limited by established operational restrictions;

craft is operated in the close vicinity to the place of refuge;

appropriate means of communication, weather forecast and technical maintenance are provided in the service area;

suitable rescue arrangements are available in the intended service area;

- .4 checking that the current Equipment Certificate to certify compliance with the HSC and the Register Rules is available on board;
  - .5 checking that the craft is provided with:

description of stability and stabilization system to provide safety during the operation of the craft in the non-displacement and transitional mode;

description of buoyancy and stability to provide safety of the craft in the displacement mode both in intact and damaged condition;

description of stability in the non-displacement and transitional mode to provide safe transfer of the craft into the displacement mode in the event of any system failure;

- .6 checking that the Stability Information for the Master is available on board. At the same time, it shall be verified that the craft has not experienced any modification affecting the Stability Information. The Information shall include data on the craft, and the conditions of loading and type of service, as well as the icing-up conditions shall be indicated;
- .7 checking, where appropriate, that the Passenger Certificate and the Passenger Ship Safety Certificate are provided on board;
- **.8** checking that the Load Line Certificate of Dynamically Supported Craft (Form 1.3.7) or the International Load Line Certificate (Form 2.2.3) is provided on board;
- .9 checking that the Technical Manual including Route Operational Manual, Craft Operating Manual, Abandon Manual, Maintenance Manual and Servicing Schedule and Training Manual are provided on board:
- .10 confirmation that the satellite EPIRBs have been annually tested and their maintenance is performed at an approved shore-based maintenance facility at intervals not exceeding five years (14.15.10 of HSC).
- **2.1.10.3** Survey of the structure, equipment, arrangements and systems to establish compliance with the HSC Code shall consist of:
- .1 inspection of the outside of the craft's bottom, including side and bottom outer plating, stem, stern frame, bilge, steps, rigid structure, rigid skirt, air ducts, trunks, propeller shaft struts, landing supports and the components for craft lifting and hull reinforcement, foil arrangement, outer plating in the areas of

increased vibration and impact loads, foil reinforcements and fastening, Z-pellers, rudder stocks, plating of cross-deck structures connecting hulls of multihull ships, sea valve recesses, in order to confirm the absence of defects like deformations and failure;

- .2 checking that the hull structures inside the dry compartments, including bottom, side and deck framing, reinforcements in the foil arrangement and bridge attachment points have no cracks, and the watertight bulkheads and decks remain tight;
- .3 checking that the spaces in the hull, including the machinery spaces with tanks and foundations of the main and auxiliary engines, passenger, accommodation and public spaces have not experienced any modifications not approved by the Flag State MA and that the structural means of safety (arrangements for securing equipment and baggage, handholds on both sides of any passage, position of seats to provide free access to any part of the accommodation space, seat belts) are in condition providing their safe use for intended purpose;
- .4 checking that the safety belts required by the HSC are provided at each seat from which the craft may be conned;
- .5 checking that the route for evacuation of people to survival craft is provided under all emergency conditions, by day or by night, that the public spaces, evacuation routes, exits, lifejackets stowage, survival craft stowage and the embarkation stations are clearly and permanently marked and properly illuminated by main and emergency power sources, and the evacuation routes are provided with adequate marking for the guidance of passengers;
- .6 checking that the intended measures for evacuation may be put into effect under controlled conditions in a time of one third of the structural fire protection time (SFP) for areas of major fire hazard after subtracting a period of 7 min. for initial fire detection and extinction action. Evacuation time = (SFP)/7 7, where SFP is structural fire protection time depending on fire-resistance class (A-60, A-30, etc.) in minutes (for instance, 60 min, 30 min, accordingly). Time of evacuation shall be checked by a practical demonstration under conditions close to the emergency ones (4.8 of HSC);
- .7 checking that the directional control systems provide, under the prevailing conditions and craft speed, an effective control of heading and direction of motion to the maximum extent possible without undue physical effort at all speeds and under all service conditions for which the craft shall be certified. Performance shall be verified in accordance with Annex 8 to the HSC (Ch. 5 of Annex 8 to HSC);
- **.8** surveying the anchoring, towing and berthing arrangements to confirm that these arrangements provide safe anchoring, towing and berthing procedures under all service conditions and in emergency situations (Ch. 6 HSC);
- .9 checking that the structural fire protection including fire-resistant structures, structural materials, means of detection, containment and extinction of any fire, protection of the means of escape and immediate availability of the fire-extinguishing arrangements have experienced no modifications to impair the reliability and decrease the safety level (Ch. 7 HSC);
- .10 checking that the fire protection arrangements related to the fuel use and storage, fuel vapour detection systems in the spaces through which the fuel pipelines pass, and alarms are in satisfactory condition (Ch. 7 HSC);
- .11 checking that the pressurization means of the main inlet and outlets of all ventilation systems outside the spaces to be ventilated are capable to disconnect all the ventilation fans outside the spaces which they serve and that the automatically closing fire dampers, fitted where the ventilation ducts pass through the fire-fire-resisting divisions, are equipped with manual drives and are in satisfactory condition (Ch. 7 HSC);
- .12 confirming that fire detection and extinction systems have been checked by demonstration of operation under all emergency situations and found to be in satisfactory condition (7.7 7.9 of HSC);
- .13 checking that the prescribed sets of fire fighter's outfit are available on board, in fit condition, and their storage conditions are satisfactory; at the same time, the fire fighter's outfit shall be checked which shall consist of:

#### .13.1 personal equipment comprising of:

protective clothing of material to protect the skin from heat radiating from the fire and from burns and scalding by steam or gases. The outer surface of the protective clothing shall be water-resistant;

boots and gloves of rubber or other electrically non-conductive material;

- a rigid helmet providing effective protection against impacts;
- a safety lamp of an approved type with a minimum burning time of 3 hrs; an axe;
- .13.2 a breathing apparatus of an approved type (7.10 of HSC);
- .14 survey of life-saving appliances and arrangements to confirm that the life-saving appliances and arrangements ensure the safe abandonment of the craft and survival of passengers and crew in emergency situations. The life-saving appliances and arrangements shall meet the requirements of the Flag State Administration. Means of communication of a craft carrying life-saving appliances shall be inspected to confirm their satisfactory technical condition (Ch. 8 HSC);
- .15 checking that the individual life-saving appliances, muster list, emergency-escape instructions and manual, survival craft operating, maintenance and securing manuals are provided on board (8.3 8.9 of HSC);
  - .16 checking that the craft is adequately provided with survival craft in accordance with 8.10 of HSC;
- .17 survey of the main and auxiliary machinery, their means of control, electrical equipment to confirm reliability of their securing, provision of means to provide maintenance or restarting of normal operation of the main machinery even though one of the essential auxiliaries becomes inoperative, and means shall be provided to ensure that the machinery can be brought into operation from the dead craft condition without external aid (Ch. 9 HSC);
- .18 checking that all boilers and pressure vessels and associated piping have been properly inspected with testing the protective means (Ch. 9 HSC);
- .19 checking that the means for the craft's propulsion and lifting enable the high-speed craft to operate safely and reliably its intended service;
- .20 checking that the means of propulsion make it possible for craft of category B to return to the port of refuge in the event of fire or any casualty in any one compartment on board (Ch. 9 HSC);
- .21 checking the auxiliary system to confirm that the fuel and oil tanks with sounding arrangements and piping, drainage systems of machinery spaces and pump compartments, ballast systems with pumps, cooling systems, air intake systems of the engines, ventilation systems of the machinery spaces, exhaust gas systems of the engines are in satisfactory condition and provide safe operation of the craft (Ch. 10 HSC);
- .22 checking the navigational equipment to confirm that the condition of the compasses, speed and distance measuring devices, echo-sounding devices, radar installations, positioning and radar plotting systems, if any, rate-of-turn and rudder angle indicators, searchlight, night vision equipment, steering gear, propulsion indicators, automatic steering aid (automatic pilot arrangement) provides safe operation of the craft (Ch. 13 HSC);
- .23 checking the radio equipment to confirm that the following functional requirements are met: transmitting ship-to-shore distress alerts by at least two separate and independent means, each using different radio communication services;

receiving shore-to-ship distress alerts;

transmitting and receiving ship-to-shore distress alerts;

transmitting and receiving messages to co-ordinate search and rescue;

transmitting and receiving on-scene communications;

transmitting and receiving signal for location;

transmitting and receiving maritime safety information;

transmitting and receiving general radio communications from and to shore-based radio systems or networks:

transmitting and receiving ship-to-ship distress alerts (Ch. 14 HSC);

.24 survey of the radio equipment to confirm that the complement of radio equipment and its technical characteristics meet the requirements of 14.5 to 14.13 of HSC and that the technical condition of the radio equipment ensures safe and reliable operation of the craft;

.25 survey of the craft control location — the navigating bridge to confirm that:

the design and layout of the navigation bridge, including arrangement and disposition of separate watchman workstations provide the required field of vision to perform the watchman functions;

the navigating bridge is not used for the purposes other than navigation, communication and other functions essential for the safe operation of the craft, its engines, to ensure safety of the passengers and cargo;

the navigating bridge is provided with an integrated control station for giving commands, navigation, manoeuvring and communication and can accommodate persons required to conn the craft safely;

the equipment and means of navigation, manoeuvring, conning, communication and other essential instruments are located sufficiently close together to enable the officers, responsible for control of the ship, to receive all necessary information and to use the required equipment and controls when they are at their workstations;

the design of the navigating bridge, disposition of the instruments and controls, radio equipment, provision of lighting, ventilation, means of communication comply with the requirements of Ch. 15 of HSC;

.26 survey of the stabilisation system to confirm that the stabilisation of the main parameters of the craft (heel, trim, course, height, control of rolling, pitching, heaving and yawing) is ensured due to the running order of the main components of the system:

the rudders, foils, flaps, flexible skirts, fans, water jets, tilting and steerable propellers, pumps for moving fluids;

the power drives actuating stabilisation devices;

the stabilisation equipment for accumulating and processing data for making decisions and giving commands, such as sensors, logic processors and automatic safety control (Ch. 16 HSC);

.27 on ships the keels of which were laid or which were at the similar stage of construction on or after 1 July 2002 but prior to 1 January 2008 to check that during repair/replacement no materials containing asbestos were used for the structure, machinery, electrical installations and equipment, except for:

vanes used in rotary vane compressors and rotary vane vacuum pumps;

watertight joints and linings used for the circulation of fluids when, at high temperature (in excess of 350 °C) or pressure (in excess of  $7 \times 10^6$  Pa), there is a risk of fire, corrosion or toxicity;

supple and flexible thermal insulation assemblies used for temperatures above 1000 °C.

**2.1.10.4** After satisfactory survey of the high-speed craft, the High-Speed Craft Safety Certificate (Form 2.1.42.1) with attached Record of Equipment (Form 2.1.42.2) shall be issued in accordance with the HSC.

When the said Certificate is issued on behalf of the Flag State Maritime Administration which is not a Party to the 1988 SOLAS Protocol, a copy of this Certificate shall be posted up in a prominent and accessible place in the craft.

- 2.1.11 Survey for issue of the Certificate of Fitness of the Ship for the Carriage of Grain in Bulk.
- **2.1.11.1** The Certificate of Fitness of the Ship for the Carriage of Grain in Bulk (Form 2.4.29) shall be issued to the ship to confirm that the ship, being loaded according to the Grain Loading Stability Information, meets the requirements of the International Code for the Safe Carriage of Grain in Bulk.
- **2.1.11.2** Survey for issue of the said Certificate consists of checking for the provision on board of the approved Grain Loading Stability Information and checking the technical condition of the permanent (welded to the ship's hull) and movable (belonging to the ship) grain-tight metal bulkheads. The levels of permissible wear and damage shall be accepted in accordance with the requirements of 2.2.2 and 2.4.2, Part II "Carrying out of Classification Surveys of Ships".

The Register does not carry out the technical supervision of the temporary (constructed for the grain carriage period) bulkheads intended to restrict grain shifting, as well as the materials and products used to secure the grain surface.

- **2.1.11.3** During the periodical surveys of ships having the Certificates of Fitness of the Ship for the Carriage of Grain in Bulk the provision on board of the approved Grain Loading Stability Information and the condition of the grain-tight bulkheads mentioned in 2.1.11.2 shall be checked.
- **2.1.11.4** The validity of the Certificate of Fitness of the Ship for the Carriage of Grain in Bulk is not established and the Certificate shall not be endorsed, however, when the condition of the bulkheads mentioned in 2.1.11.2 is unsatisfactory or when the ship's structure has experienced changes affecting the stability calculations for grain carriage, the Certificate of Fitness of the Ship for the Carriage of Grain in Bulk shall be cancelled.
- 2.1.12 Technical supervision of compliance with the requirements of the International Maritime Solid Bulk Cargoes Code.
  - 2.1.12.1 General.
- **2.1.12.1.1** The technical supervision of the compliance with the requirements of the IMSBC consists in the survey of the ship to verify its fitness for the carriage of solid bulk cargoes other than grain. As regards survey of ships carrying bulk cargoes presenting chemical hazard, see Annex 25.
- **2.1.12.1.2** The document confirming the compliance with the requirements of the IMSBC is Certificate of Fitness of the Ship for the Carriage of Bulk Cargoes (Form 2.1.18). The Certificate (Form 2.1.18) confirms the fitness of the ship to carry cargoes of A and C groups in accordance with Annex 1 to the IMSBCe. When drawing up the Certificate (Form 2.1.18), the surveyor shall draw up the documents under the following Forms (Forms 6.1.02 and 6.1.18 or 6.1.03). The Certificate remains valid for 60 months, provided it is annually endorsed.
- **2.1.12.1.3** For carriage of solid bulk cargoes presenting chemical hazard listed in group B in accordance with Annex 1 to the IMSBC and classified according to regulation 7 Part A-1 Chapter VII SOLAS-74 as amended or as materials hazardous only in bulk (MHB), Appendix (Form 2.1.18 and 2.1.19) to the Certificate shall be also drawn up and issued to the ship, except to the ships listed in 2.1.12.1.4. When drawing up the Certificates (Forms 2.1.18 and 2.1.19), the surveyor shall also draw up the documents according to the following forms (Forms 6.1.02 and 6.1.18 or 6.1.03).
- **2.1.12.1.4** For carriage of solid bulk cargoes which refer to group B in accordance with Annex 1 to the IMSBC and classified according to regulation 7 Part A-1 Chapter VII SOLAS, except for the Supplement to the Certificate (Form 2.1.19), Certificates (Forms 2.1.17.1 or 2.1.17) shall be drawn up in accordance with 2.1.5.4.1 or 2.1.5.4.2 depending on the application of the regulations II-2/54.3 or II-2/19.4 SOLAS-74 as amended. When drawing up the Certificates (Forms 2.1.18, 2.1.19, 2.1.17/2.1.17.1), the surveyor shall also draw up the documents according to the following Forms (Forms 6.1.02, 6.1.18 and 6.1.27 or 6.1.03).
- **2.1.12.1.5** For cargo ships not fitted with a fixed gas fire-extinguishing system for the cargo spaces, the Exemption Certificate (Form 2.1.16.2) and the List of Cargoes the Ship is Permitted to Carry (Form 2.1.25) to exempt the ship from the requirements of regs. II-2/10.7.1.3 or 10.7.2 by virtue of the provisions of reg. II-2/10.7.1.4 of SOLAS-74 as amended, shall be drawn up and issued in accordance with the established procedure.

The List (Form 2.1.25) may include the incombustible cargoes or cargoes of low fire risk indicated in Table 1 of the Appendix to the IMO MSC.1/Circ.1395/Rev.2.

The Exemption Certificates are to be drawn up and issued to cargo ships:

- .1 of 2000 gross tonnage and above regardless of the date of their construction;
- .2 engaged in carriage of dangerous goods listed in IMO Circular MSC.1/Circ.1395/Rev.2, in cargo spaces having 500 gross tonnage and more, irrespective of the date of construction (MSC.99(73) of 5.12.2000);
- .3 engaged in carriage of dangerous goods listed in IMO Circular MSC.1/Circ.1395/Rev.2, in cargo spaces, having less than 500 gross tonnage, the keels of which were laid or which were at the similar phase of construction on 1 February, 1992 or after this date.

Such Exemption Certificates may be issued only in the event when the ship is equipped with steel hatch covers and effective means for closing all the fans and other openings in cargo spaces.

The List (Form 2.1.25) specifies only such bulk cargoes presenting chemical hazard which are shown in the Supplement to the Certificate (Form 2.1.19). Grain may be included into the List if the Certificate of

Fitness of the Ship for the Carriage of Grain in Bulk (Form 2.4.29) is issued. In column 3 of the List, corresponding references shall be made to the Certificates (Form 2.1.18 and Form 2.4.29) and Supplement to the Certificate (Form 2.1.19), which are kept on board the ship.

**2.1.12.1.6** Cargo ships not fitted with the fixed gas fire-extinguishing system may carry dangerous goods indicated in Table 2 of the Appendix to the IMO Circular MSC.1/Circ.1395/rev.2, for which the fixed gas fire-extinguishing system is not effective, provided the requirements of reg. II-2/19.3.1 of SOLAS-74 as amended are complied with.

The Exemption Certificate is not issued in this case, and the document confirming the fitness of the ship for carriage of such cargoes is the Supplement to the Certificate (Form 2.1.19) or the Supplement to the Certificate (Form 2.1.19) and the Certificate (Forms 2.1.17 or 2.1.17.1) (see 2.1.12.1.3 and 2.1.12.1.4, respectively).

#### 2.1.12.2 Survey.

- **2.1.12.2.1** The appropriate information on ship's stability and strength, supplement to this information, type plans of loading by cargo of a particular stowage factor or other similar documents available on board shall be submitted to the RS Surveyor.
- 2.1.12.2.2 Fitness of the ship for the carriage of solid cargoes presenting chemical hazard which refer to group B in accordance with Annex 1 to the IMSBC Code and classified in accordance with regulation 7 Part A-1 Chapter VII SOLAS-74 as amended or as materials hazardous only in bulk (MHB) is established by the RS Surveyor on the basis of the approved technical feasibility study confirming compliance of the ship's structure, equipment and cargo spaces with the applicable requirements to ensure safe carriage of particular cargoes. In specific cases, the fitness of the ship for the carriage of a particular cargo may be established by the RS Surveyor on the basis of documents prepared for the carriage of this cargo by the Shipper or, on his authorization, by a competent body recognised by the Flag State MA. In this case, the validity of the documents issued by the Register to confirm fitness of the ship for the carriage of this cargo shall not exceed the validity period of the documents prepared by the Shipper.
- **2.1.12.2.3** After satisfactory survey, the required documents according to 2.1.12.1.2 to 2.1.12.1.4 shall be drawn up and issued to the ship.

## 2.1.13 Survey of MODU and FOB in compliance with the international codes, conventions and resolutions.

**2.1.13.1** Provisions of the Code for Construction and Equipment of Mobile Offshore Drilling Units, 2009, (IMO resolution A.1023(26), hereinafter referred to as "2009 MODU Code" apply to the units, as they are defined in 2.1.13.2, the keels of which are laid on or after 1 January, 2012.

Provisions of the Code for Construction and Equipment of Mobile Offshore Drilling Units, 1989, (IMO resolution A.649(16), hereinafter referred to as "1989 MODU Code" apply to the units, as they are defined in 2.1.13.2, the keels of which are laid on or after 1, May, 1991 but before 1 January, 2012.

Provisions of the Code for Construction and Equipment of Mobile Offshore Drilling Units, 1979, (IMO resolution A.414(XI), hereinafter referred to as "1979 MODU Code" apply to the units, as they are defined in 2.1.13.2, the keels of which are laid on the date of enter into force of the Code and up to 1 May, 1991.

#### 2.1.13.2 Definitions.

Administration means the Government of the State whose flag the unit is entitled to fly.

Helideck is a purpose-built helicopter landing platform located on a mobile offshore drilling unit (MODU).

Organization means the International Maritime Organization (IMO).

Mobile offshore drilling unit (MODU) or unit is a vessel capable of engaging in drilling operations for the exploration for, or exploitation of, resources beneath the sea-bed such as liquid or gaseous hydrocarbons, sulphur or salt.

Surface unit is a unit with a ship- or barge-type displacement hull of single or multiple hull construction intended for operation in the floating condition

Coastal State means the Government of the State exercising administrative control over drilling operations of the unit.

Industrial machinery and components are the machinery and components which are used in connection with the drilling operation.

Self-elevating unit is a unit with movable legs capable of raising its hull above the surface of the sea and lowering it back into the sea.

Column-stabilized unit is a unit with the main deck connected to the underwater hull or footings by columns or caissons.

#### **2.1.13.3** Exemptions.

An Administration may exempt any MODU, which embodies features of a novel kind, from any of the provisions of 2009, 1989 or 1979, as appropriate MODU Code the application of which might impede research into the development of such features. Any such MODU shall, however, comply with the safety requirements which, in the opinion of that Administration, are adequate for the service intended and are such as to ensure the overall safety of the unit. The Administration, which allows any such exemptions, shall list these on a certificate and communicate to the Organization the particulars, together with the reasons therefore, so that the Organization may circulate the same to other Governments for the information of their officers.

#### 2.1.13.4 Equivalents.

- **2.1.13.4.1** Where 2009, 1989 or 1979 (as appropriate) MODU Code requires that a particular fitting, material, appliance, apparatus, item of equipment or type thereof shall be fitted or carried in a MODU, or that any particular provision shall be made, the Administration may allow any other fitting, material, appliance, apparatus, item of equipment or type thereof to be fitted or carried, or any other provision to be made in that MODU, if it is satisfied by trial thereof or otherwise that their use is at least as effective as that required by the 2009, 1989 or 1979 (as appropriate) MODU Code.
- **2.1.13.4.2** When the Administration so allows any fitting, material, appliance, apparatus, item of equipment or type thereof, or provision, procedure, arrangement, novel design or application to be substituted, it shall communicate to the Organization the particulars thereof, together with a report on the evidence submitted, so that the Organization may circulate the same to other Governments for the information of their officers.

#### **2.1.13.5** Surveys.

Each unit shall be surveyed in compliance with the requirements in 1.8 and shall also meet the following 2009, 1989 or 1979, as appropriate MODU Code provisions:

- .1 a dry dock survey includes the inspection of the items to be surveyed at the same time to make sure that they remain satisfactory for the service for which the unit is intended. An Administration may allow underwater inspection in lieu of the dry dock survey provided that it is satisfied that such an inspection is equivalent to the dry dock survey;
- .2 the extent of a radio station survey shall be sufficient to assure compliance with the relevant provisions for cargo ships of Chapter IV in SOLAS-74, as amended;
- .3 an additional survey, either general or partial according to the circumstances, shall be made after a repair resulting from the investigations prescribed in 2.1.13.6.8, or wherever any important repairs or renewals are made. The survey shall be such as to ensure that the necessary repairs or renewals have been effectively made, that the material and workmanship of such repairs or renewals are in all respects satisfactory, and that the unit complies in all respects with the 2009, 1989 or 1979, as appropriate MODU Code requirements;
- .4 as an alternative to a renewal or intermediate survey, the Administration may, at the owner's request, approve a continuous survey system provided that the extent and frequency of the surveysare equivalent to renewal or intermediate surveys;

The copy of a Continuous Survey List of such continuous survey, together with the records of the surveys, shall be kept on board the MODU and the certificate annotated accordingly;

.5 the inspection and survey of the units, so far as regards the enforcement of the 2009, 1989 or 1979, as appropriate MODU Code provisions and the granting of exemptions therefrom, shall be carried out by officers of the Administration. The Administration may, however, entrust the inspections and surveys to surveyors nominated for the purpose or to organizations recognized by it;

.6 when a surveyor determines during survey performance that the condition of the MODU or its equipment does not correspond substantially with the particulars of the certificate or is such that the unit is not fit to operate without danger to the unit, or persons on board, such surveyor shall immediately ensure that corrective action is taken and shall in due course notify the Administration. If such corrective action is not taken, the certificate shall be withdrawn and the Administration shall be notified immediately.

If MODU is in an area under the jurisdiction of another Government, the appropriate authorities of the port or coastal State shall be notified immediately. When the officer of the Administration or the surveyor of a recognized organization has notified the appropriate authorities of the port or coastal State, the Government of the port or coastal State concerned shall give any necessary assistance to carry out their obligations according to these requirements.

When applicable, the Government of the port or coastal State concerned shall ensure that the MODU shall not continue to operate until it can do so without danger to the unit, environment or persons on board;

- .7 after any survey of the unit according to these requirements has been completed, no change shall be made to structure, equipment, fittings, arrangements and materials covered by the survey, without the sanction of the Administration;
- .8 whenever an accident occurs to a unit or a defect is discovered, either of which affects the safety of the unit or the efficiency or completeness of structure, equipment, fittings, arrangements and materials, the person in charge or the owner of the unit shall report the accident or defect at the earliest opportunity to the Administration, the nominated surveyor or recognized organization responsible, who shall cause investigations to be initiated to determine whether a survey is necessary. If the unit is in the area under the jurisdiction of another Government, the person in charge or the owner shall also report the accident or defect immediately to the appropriate authorities of the port or coastal State, and the nominated surveyor or recognized organization shall ascertain that such a report has been made.
  - 2.1.13.6 Issue of certificates.
- **2.1.13.6.1** Mobile Offshore Drilling Unit Safety Certificate (2009) (Form 2.4.24.1) shall be issued after initial survey and renewal survey for the unit which is in compliance 2009 MODU Code.
- **2.1.13.6.2** Mobile Offshore Drilling Unit Safety Certificate (1989) (Form 2.4.24.1) shall be issued after initial survey and renewal survey for the unit which is in compliance with 1989 MODU Code.
- **2.1.13.6.3** Mobile Offshore Drilling Unit Safety Certificate (1979) (Form 2.4.24.2) shall be issued after initial survey and renewal survey for the unit which is in compliance with 1979 MODU Code.
- **2.1.13.6.4** The Certificate shall be issued or endorsed by the Administration or by any person or organization recognized by it. In every case, that Administration assumes full responsibility for the Certificate.
- **2.1.13.6.5** The Mobile Offshore Drilling Unit Safety Certificate shall be drawn up in the official language of the issuing country and include a translation into the English language.
- **2.1.13.6.6** The Certificate shall issued for a period specified by the Administration which shall not exceed five years.
- **2.1.13.6.7** If the Certificate is issued for a period of less than five years (when the requirements in 1.6.11.3 of the 2009 MODU Code apply), the Administration may extend its validity beyond the expiry date to the maximum period specified in 2.1.13.7, provided that the surveys when the Certificate is issued for a period of five years are carried out.
- **2.1.13.6.8** If a renewal survey has been completed and a new certificate cannot be issued or placed on board the unit before the expiry date of the existing certificate (when the requirements in 1.6.11.4 of the 2009 MODU Code apply), a surveyor may endorse the existing certificate and such a certificate shall be accepted as valid for a further period not exceeding five months from the expiry date.
- **2.1.13.6.9** If a unit at the time when a certificate expires is not in the place wherein it shall be surveyed (when the requirements in 1.6.11.5 of the 2009 MODU Code apply), the Administration may extend the period of validity of the certificate, but this extension shall be granted only for the purpose of allowing the unit to proceed to the place wherein it is to be surveyed, and then only in cases where it appears proper and reasonable to do so.

No certificate shall be extended for a period longer than three months, and the unit to which an extension is granted shall not, on its arrival in the place of its surveying, be entitled by virtue of such extension to leave that place without having a new certificate.

- **2.1.13.6.10** According to 1989 and 1979 MODU Codes prolongation of Mobile Offshore Drilling Unit Safety Certificate is not allowed;
- **2.1.13.6.11** The new certificate shall be valid from a date of completion of the renewal survey to a date not exceeding five years from the date of expiry of the existing certificate before the extension was granted. In special circumstances, as determined by the Administration, a new certificate need not be dated from the date of expiry of the existing certificate. In these circumstances, the new certificate shall be valid to a date not exceeding five years from the date of completion of the renewal survey.
- **2.1.13.7** The Register, within its competence, shall supervise the performance of the MODU technical requirements of the following international conventions and agreements as amended:

International Convention for the Safety of Life at Sea, 1974 (SOLAS-74/78/88/00 International Convention on Load Lines, 1966/1988 (LL-66/88)

Code for Construction and Equipment of Mobile Offshore Drilling Units (MODU, 2008);

International Convention for the Prevention of Pollution from Ships, 1973 (MARPOL 73/74);

International Regulations for Preventing Collisions at Sea, 1972;

Occupational Safety and Health (Dock Work) Convention, 1979 (ILO 152);

International Convention on Tonnage Measurement of Ships, 1969.

- **2.1.13.8** Additional provisions on survey of MODU and FOP for which requirements of 2009, 1989, 1979 MODU Codes (IMO resolutions A.1023(26), A.649(16), A.414(XI)) shall apply are given in Annex 44.
- **2.1.13.9** On MODU engaged in international voyages, in addition to the Mobile Offshore Drilling Unit Safety Certificate (1979, 1989 or 2009) certificates required by LL-66/88. MARPOL 73/78, ILO-152, AFS-Convention and ITC-69 shall be issued.
- **2.1.13.10** Subject to documents, confirming fulfillment of the requirements of conventions, listed in 2.1.13.9, it is necessary to follow applicable provisions of this section.

### 2.2 SURVEY OF SHIPS IN COMPLIANCE WITH THE INTERNATIONAL CONVENTION FOR PREVENTION OF POLLUTION FROM SHIPS, 1973/78

#### 2.2.1 Survey for issue of the International Oil Pollution Prevention Certificate.

**2.2.1.1** The scope of the ship survey is set in compliance with IMO resolution A.1120(30).

In case of satisfactory results of the initial/renewal/annual/intermediate survey, upon completion thereof, the International Oil Pollution Prevention Certificate with Supplements A or B (as applicable) shall be issued/renewed/confirmed.

- 2.2.2 Survey for issue of the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk.
  - **2.2.2.1** The scope of the ship survey is set in compliance with IMO resolution A.1120(30).

In case of satisfactory results of the initial/renewal/annual survey, upon completion thereof, the International Pollution Prevention Certificate for Carriage of Noxious Liquid Substances in Bulk shall be issued/renewed/confirmed.

- 2.2.3 Survey for the International Sewage Pollution Prevention Certificate.
- 2.2.3.1 The scope of the ship survey is set in compliance with IMO resolution A.1120(30).

In case of satisfactory results of the initial/renewal survey, upon completion thereof, the International Sewage Pollution Prevention Certificate shall be issued/renewed.

- 2.2.4 Survey of the ship's equipment and arrangements for compliance with the requirements of Annex V to MARPOL 73/78.
  - 2.2.4.1 General.

**2.2.4.1.1** The provisions in 2.2.4 in general regulate the scope of surveys of ships in service for renewal (confirmation) of the Certificate of Compliance of Equipment and Arrangements of the Ship with the Requirements of Annex V to MARPOL 73/78.

Although performance of surveys and issue of the International Garbage Pollution Prevention Certificate are not provided by Annex V to MARPOL 73/78, the Register carries out surveys and issues not international Certificate of Compliance of Equipment and Arrangements of the Ship with the Requirements of Annex V to MARPOL 73/78 (Form 2.4.15) upon the relevant authorization of Administration.

**2.2.4.1.2** The scope of the initial survey of the ship is established based on the applicable requirements of Annex V of MARPOL 73/78 with regard to the provisions of the Guidelines on the Application of Provisions of the International Convention MARPOL 73/78.

In case of satisfactory results of the initial survey/survey for confirmation/renewal of the Certificate, upon completion thereof, the Non-international Certificate of Compliance of Equipment and Arrangements of the Ship with the Requirements of Annex V to MARPOL 73/78 Convention as amended by IMO resolution MEPC.201(62) (Form 2.4.15).

- **2.2.4.2** Survey for annual confirmation/renewal of the Certificate.
- **2.2.4.2.1** For prevention of pollution by garbage from ships, the examination of current certificates and other records shall consist of the following:
- .1 checking the validity of the Certificate of Compliance of Equipment and Arrangements of the Ship with the Requirements of Annex V to MARPOL 73/78;
- .2 checking whether any new equipment has been installed and, if so, confirming that it has been approved before installation and that any changes are reflected in the appropriate certificate;
- .3 checking, where applicable, whether a copy of the Type Approval Certificate for incinerator is on board in compliance with MEPC.59(33) or MEPC.76(40), whichever is appropriate. The shipboard incinerators installed on the ships constructed on or after 1 January 2000 shall comply with the requirements of Resolution MEPC.76(40) (reg. 16.6.1, Annex VI to MARPOL 90/04);
- .4 checking, where applicable, availability of the manufacturer's operating manual (provisions of the manual shall be considered when making a decision on scope of the survey and operation testing of the incinerator) (reg. 16.7, Annex VI to MARPOL 90/04);
- .5 confirming, where applicable, that the Garbage Management Plan is available on board (reg. 10.2, Annex V to MARPOL 90/04);
- .6 confirming, where applicable, that the Garbage Record Book is available on board (reg. 10.3, Annex V to MARPOL 90/04);
- .7 confirming, where applicable, that placards which notify the crew and passengers of the discharge requirements are available on board (reg. 10.1, Annex V to MARPOL 90/04).
- **2.2.4.2.2** Every ship of 100 gross tonnage and above, and every ship which is certified to carry 15 or more persons shall carry a Garbage Management Plan (reg. 10.2, Annex V to MARPOL 90/04), which shall be developed in compliance with the Guidelines for the Development of Garbage Management Plans (IMO resolution MEPC.220(63).

Although the approval of the Garbage Management Plan is not required by Annex V to MARPOL 73/78, it may be approved on behalf of Administrations, which authorized the Register appropriately.

**2.2.4.2.3** Every ship of 400 tons gross tonnage and above, and every ship which is certified to carry 15 or more persons shall be provided with a Garbage Record Book in the set form (reg.10.3, Annex V to MARPOL 90/04). This requirement applies to the ships engaged in international voyages.

When the ships carries solid bulk cargoes as specified in reg. VI/1-1.2 of SOLAS-74, the Garbage Record Book shall comply with the requirements given in IMO resolution MEPC.277(70).

The requirements to the Garbage Record Book are stated in Appendix 1 "INSTRUCTIONS FOR APPLICATION OF THE REQUIREMENTS OF THE REVISED ANNEX V TO MARPOL 73/78" of the Guidelines on the Application of Provisions of the International Convention MARPOL 73/78.

**2.2.4.2.4** Every ship of 12 m or more in length overall shall display placards, which notify the crew and passengers of the discharge requirements.

#### **2.2.4.2.5** During survey of garbage receptacles the following shall be checked:

.1 separate garbage receptacles shall be available on board in compliance with IMO resolution MEPC.219(63), MEPC.239(65) and MEPC.277(70) for the following garbage types:

non-recyclable plastics and plastics mixed with non-plastic garbage;

food wastes;

domestic wastes: glass, metal, aluminium cans, bottles, wood, paper, cardboard, rags, crockery, etc.; cooking oil;

incinerator ashes;

operational waste, including the garbage, that might present a hazard to the ship or crew (e.g. oily rags, light bulbs, acids, chemicals, batteries, etc.);

E-waste generated on board (e.g. electronic cards, gadgets, instruments, equipment, computers, printer cartridges, etc.);

cargo residues (non-HME);

Cargo residues (HME);

cargo residues (where applicable);

animal carcasses (where applicable);

fishing gear (where applicable).

For each type of garbage (glass, metal, aluminium cans, bottles, wood, paper, cardboard, rags, crockery, etc.) referring to the category "domestic wastes", the separate receptacles are recommended;

.2 garbage receptacle of each type shall be checked for availability of the following:

relevant marking;

reliability of detachable arrangement fastening for storing garbage and fit condition of equipment for unloading fixed garbage receptacles;

covers ensuring tight and secure closing of openings for garbage collection.

- **2.2.4.2.6** Survey of garbage treatment plants.
- **2.2.4.2.6.1** In case a food wastes comminuter or grinder is available on board, the following shall be checked:
  - .1 availability of Certificate (Form 6.5.30) issued upon results of survey of the comminutor or grinder;
- .2 operation testing of the comminuter or grinder in compliance with the manufacturer's operating manual and fulfilment of the requirements for degree of food wastes comminuting (sizes of particles of comminuted or ground food wastes shall not exceed  $25 \times 25$  mm);
- .3 in case of food wastes treatment in a slurry of food particles and water, its easy flushing in compliance with the above requirements for degree of comminuting and providing output ranges from 10 to 250 l/min;
- .4 piping system for discharging a slurry of food particles and water into the sea or in a special holding tank, if any, intended for collecting comminuted food wastes when the ship is operating within the areas where discharge is prohibited in compliance with Annex V to MARPOL 73/78.
- **2.2.4.2.6.2** If compactor designed to reduce the amount of garbage, is available on board, the following shall be checked:
  - .1 availability of Certificate (Form 6.5.30) issued upon results of survey of the compactor;
  - .2 operation testing of the compactor in compliance with the manufacturer's operating manual;
- .3 fresh water wash down service, deck drains, ventilation, as well as fire-fighting equipment in compartment intended for the compactor installation.
- **2.2.4.2.6.3** Operation testing of the incinerator for garbage incineration, if any, shall be performed in compliance with the manufacturer's operating manual, whereas the following shall be checked:

fit condition of liquid fuel and oil residue nozzles, fuel pipelines and their valves, service fuel tank and tank for preparation of oil residues for incinerating;

condition of firebricks/refractory of the combustion chamber; condition of the incinerator cooling system (where applicable); fit condition of fuel gas fan; fit condition of the charging lock (where applicable);

fit condition of the interlock installed to prevent the charging door from opening while the incinerator is in operation with burning of garbage in progress or while the furnace temperature is above 220 °C (when the incinerator is not equipped with a charging lock);

fit condition of the interlock to prevent ash removal doors from opening while burning is in progress or while the furnace temperature is above 220 °C;

fit condition of the combustion chamber observation port to provide visual control of the burning process;

fit condition of the incinerator electrical equipment, including controls, safety devices and cables; condition of the warning plates attached on the incinerator casing warning against opening the doors to combustion chamber during the incinerator operation and against the incinerator overloading, and other instruction plates provided by the manufacturer's operating manual;

fit condition of the emergency stop switch, which stops power supply to the incinerator equipment, including oil burners;

operation of flame safeguard control when the fuel does not ignite or goes out when being ignited. The flame safeguard control shall close the fuel valves and burners in not more than 4 s after a flame failure; operation of the flame safeguard control for automatic shut-off of the fuel supply to the burners if flame is not established within 10 s since a trial-for-ignition period;

operation of safety devices (relays) shutting off the fuel supply to the burners and sludge oil supply to the sludge oil residues burners if fuel oil pressure drops below the value set by the manufacturer;

automatic shutdown of the incinerator if there is loss of power to the incinerator control/alarm panel; all the interlocks, warning alarm systems, automatic devices for the incinerator shutdown in the emergencies described in the manufacturer's operating manual;

condition of the incinerator exhaust gas piping and the outside surface temperature of the incinerator casing which during normal operations shall not exceed 20 °C above the ambient temperature.

# 2.2.5 Survey for issue of the International Air Pollution Prevention Certificate and International Energy Efficiency Certificate of the ship.

**2.2.5.1** The scope of the ship survey is set in compliance with IMO resolution A.1120(30). During the survey, the provisions of the Guidelines on the Application of Provisions of the International Convention MARPOL 73/78 shall be also taken into consideration.

In case of satisfactory results of the initial/renewal/annual/intermediate survey, upon completion thereof, International Air Pollution Prevention Certificate (Form 2.4.6) with the Supplement to the International Air Pollution Prevention Certificate (Form 2.4.23) shall be issued/renewed/confirmed.

- 2.2.5.5 Survey for issue of the International Energy Efficiency Certificate.
- **2.2.5.5.1** While carrying out the surveys of existing ships besides the provisions of the Chapter it's also necessary to follow the provisions of Chapter 2.6, Part VI "Ship's equipment and arrangements for the prevention of air pollution" of the Guidelines on the Application of Provisions of the International Convention MARPOL 73/78.
- **2.2.5.5.2** The International Energy Efficiency Certificate (Form 2.4.3) with the Supplement to the International Energy Efficiency Certificate (Form 2.4.3.1) may be issued for the ships of 400 gross tonnage and above engaged in international voyages for the entire service life of the ship".
- **2.2.5.5.3** To issue the International Energy Efficiency Certificate (IEEC) (Form 2.4.3) with Supplement to the International Energy Efficiency Certificate (Form 2.4.3.1) for the ship, not being a new ship, which definition is given in reg. 2.23, Annex VI to MARPOL 73/78, it is necessary to confirm the availability on board of the Ship Energy Efficiency Management Plan (SEEMP), as required by reg. 22, Annex VI to MARPOL 73/78.
- **2.2.5.5.4** For the ships of 5000 gross tonnage and above it's necessary to check the conformity of the Ship Energy Efficiency Management Plan (SEEMP) with the requirement 22.2 of Annex VI to MARPOL 73/78, namely the presence in SEEMP the methodology and processes for collecting data on fuel oil consumption, distance travelled over ground and hours underway (according to IMO resolution MEPC.278 (70) "Amendments to MARPOL Annex VI (Data collection system for fuel oil consumption of ships)" SEEMP shall include the abovementioned not later than 31.12.2018).

**2.2.5.5.5** In the event that the SEEMP is not found on board during the above mentioned surveys, then the advice of the Flag State MA shall be sought in compliance with IACS UI MPC102 concerning the issue of the above mentioned IEEC.

However, the endorsement or issue of the above mentioned IAPP Certificate shall not be impacted by the lack of SEEMP on board.

- **2.2.5.5.6** In accordance with IMO resolution MEPC.278(70) "Amendments to MARPOL Annex VI (Data collection system for fuel oil consumption of ships)", from 1 January 2019, every ship of 5000 gross tonnage and above, on which SEEMP is required, shall ensure collecting data on fuel oil consumption, distance travelled over ground and hours underway, using methodology and processes set out in SEEMP.
- **2.2.5.5.7** Within three months after the end of each calendar year (from 1 January till 31 December (included)), the ship shall report to Flag State MA or recognized organization of the Flag State MA duly authorized by it the aggregated value for each datum specified in appendix IX to IMO resolution MEPC.278(70), via electronic communication and using a standardized format in accordance with appendix 3 to IMO resolution MEPC.282(70).
- **2.2.5.5.8** Upon review of reported data (the aggregated values) and satisfactory results, the Flag State MA or recognized organization of the Flag State MA duly authorized by it shall issue Statement of Compliance Fuel Oil Consumption Reporting (Form 2.4.43) as per form given in appendix X to IMO resolution MEPC.278(70) related to fuel oil consumption to the ship no later than five months from the beginning of the calendar year.
- **2.2.5.5.9** In the event of the change of a flag, the shipowner shall on the date of completion of the change of a flag (or as quickly as possible) provide the losing Flag State MA or a recognized organization of the Flag State MA duly authorized thereof with the report on the aggregated Data collection for the period of the calendar year and, upon prior request of that Flag State MA, the disaggregated data.
- **2.2.5.5.10** In the event of a change of one Shipowner to another, the new Shipowner shall provide the Flag State MA or a recognized organization of the Flag State MA duly authorized thereof with the transfer of the existing report on the aggregated Data collection for the period of the calendar year on the day of completion of the change of the flag (or as close as practical thereto) or upon request of the Flag State MA of the disaggregated data.

### 2.2.6 Survey of oil tankers in connection with Condition Assessment Scheme (CAS) Surveys.

Flag State MA may permit further operation of Category 2 or 3 oil tanker in accordance with the provisions of reg. 20.5 and 20.8.1, Annex I to MARPOL 73/78, as amended. Therewith, based on reg. 20.6, Annex I to MARPOL 73/78, as amended, Category 2 or 3 oil tanker of 15 years and over after the date of its delivery shall comply with the Condition Assessment Scheme adopted by IMO Marine Environment Protection Committee by resolution MEPC.94(46), as amended.

Note. Scope of application is specified in reg. 20 "Double hull and double bottom requirements for oil tankers delivered before 6 July 1996", Annex I to MARPOL 73/78, as amended.

In accordance with reg. 20.7, Annex I to MARPOL 73/78, as amended, the oil tanker of Category 2 or 3 shall shall not go beyond the anniversary of the date of delivery of the ship in 2015 or the date on which the ship reaches 25 years after the date of its delivery, whichever is the earlier date.

### 2.3 SURVEY OF SHIPS IN ACCORDANCE WITH THE INTERNATIONAL CONVENTION ON LOAD LINES 1966/88

# 2.3.1 Survey for issue of the International Load Line Certificate or International Load Line Exemption Certificate.

**2.3.1.1** The scope of the ship survey is set in compliance with IMO resolution A.1120(30).

In case of satisfactory results of the initial/renewal/annual survey, upon completion thereof, an International Load Line Certificate or an International Load Line Exemption Certificate shall be issued/renewed/confirmed (depending on the Flag State MA requirements, the availability of both two Certificates may be requested on board the ship).

**2.3.1.2** For ships flying the flag of the Russian Federation with the class of the Register of restricted navigation areas RI, R2, R2-RSN, R2-RSN (4,5), R3-RSN and R3 as well as with the class of the Russian River Register engaged on international voyages, in addition to the International Load Line Certificate, the Register issues the Supplement (Form 2.2.3-1) in which restrictions for ship operation areas and navigation conditions are stated. Such practice is approved by IMO and does not require additional agreement or issue of Exemption Certificate. The Supplement shall be issued for a ship with a copy Circular Letter No. 2014 dated 31.10.1997 of IMO MSC (refer to Appendix 16). For ships flying the flags other than those of the Russian Federation with ships included in convention records of RS with similar restrictions for operation areas, the mentioned Supplement to the International Load Line Certificate shall be issued subject to appropriate authorization of the Flag the Supplement shall be issued for a ship with a copy of authorization of the Flag State MA. The list of the Flag State MA which delegated RS with such authorities is given in the Instruction for Filling-in the Supplement (Form 2.2.3-1) in the RS internal procedures for issuing the RS records.

2.4 SURVEY OF SHIPS IN COMPLIANCE WITH THE INTERNATIONAL CONVENTIONON THE CONTROL OF HARMFUL ANTI-FOULING SYSTEMS ON SHIPS, 2001 (AFS-CONVENTION) AND REGULATION (EC) NO. 782/2003 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL 2003 (REGULATION (EC) NO. 782/2003)

#### 2.4.1 Application

These requirements apply to survey of ships of 400 gross tonnage and above engaged in international voyages.

For ships of 24 m (LL-66/88) or more in length but less than 400 gross tonnage and engaged in international voyages, the requirements of 2.4.2.7 apply.

Application of the present Chapter requirements to fixed offshore platforms, mobile offshore drilling units and floating offshore oil-and-gas production units (floating storage and offloading units and floating production storage and off-loading units) shall be reviewed by the Register with due regard for the requirements of Flag State MA.

#### 2.4.2 General

- **2.4.2.1** This Chapter regulates the scope of survey of ship in service for International Anti-Fouling System Certificate (Form 2.4.30/2.4.30ec)/Statement of Compliance of Anti-Fouling System (Form 2.4.30.1) with the Record of Anti-Fouling Systems (Form 2.4.31/2.4.31ec/2.4.31.1). This Chapter considers provisions of the following IMO resolutions: MEPC.195(61) "2010 Guidelines for Survey and Certification of Anti-Fouling Systems on Ships" and MEPC.104(49) "Guidelines for Brief Sampling of Anti-Fouling System on Ships".
- **2.4.2.2** The survey of ships for compliance with the AFS-Convention/Regulation (EC) No 782/2003 and issue of confirming documents (refer to 2.4.2.1) is effected at the Shipowner's request on the instructions of the Flag State MA.
- **2.4.2.3** To ships flying the flag of a State which is a Party to the AFS-Convention and which authorized the Register to survey and issue the certificates to ships for compliance with the requirements of the AFS-Convention, the International Anti-Fouling System Certificate (Form 2.4.30) with Record of Anti-fouling Systems (Form 2.4.31) and Report on Survey of the Ship (Form 6.3.10 or Form 6.1.02) or Ship's Survey Statement (Form 6.1.03) are issued.
- **2.4.2.4** To ships flying the flag of a State which is not a Party to the AFS-Convention but which authorized the Register to survey and issue the certificates to ships for compliance with the requirements of the AFS-Convention, the Statement of Compliance of Anti-Fouling System (Form 2.4.30.1) is issued, or, to ships flying the flags of the Member States of the EU Community the International Anti-Fouling System Certificate (Form 2.4.30ec), issued in accordance with Regulation (EC) No. 782/2003, as well as Record of Anti-Fouling Systems (Form 2.4.31.1/2.4.31ec) and Report on Survey of the Ship (Form 6.3.10 or Form 6.1.02) or Ship's Survey Statement (Form 6.1.03) are issued. After the State has ratified the AFS-

Convention, the Statement of Compliance of Anti-Fouling System or International Anti-Fouling System Certificate issued in accordance with Regulation (EC) No 782/2003, shall be replaced with the International Certificate in accordance with the AFS-Convention.

- **2.4.2.5** In case of absence of data about the upper layer of anti-fouling coating, it is assumed that the ship does not comply with the requirements of the AFS-Convention. To verify compliance with the AFS-Convention, the method of brief sampling of anti-fouling systems on ships may be used (refer to 2.4.6 and IMO resolution MEPC.104(49)).
- **2.4.2.6** Repairs generally do not require a survey. However, repairs affecting approximately twenty-five (25) percent or more of the anti-fouling system shall be considered as a change or replacement of the anti-fouling system.
- **2.4.2.7** For ships of 24 m or more in length, but less than 400 gross tonnage, the shipowner or authorized shipowner's representative, irrespective of whether the anti-fouling system is applied, shall draw up a Declaration on Anti-Fouling System (hereinafter referred to as the Declaration) in the form given in Appendix 2 to Annex 4 of the AFS-Convention or in Annex III to Regulation (EC) No 782/2003. Such Declaration shall be accompanied by appropriate documentation such as a paint receipt or a subcontractor invoice (it is also recommended to enclose documents mentioned in 2.4.3.1.2 to 2.4.3.1.4, 2.4.3.2).

Availability of the Declaration and supporting documents shall be checked by the Register during the initial and annual survey. Where the above documents are not available onboard, a relevant recommendation to the shipowner shall be made in the List of Survey's Status.

**2.4.2.8** Where the anti-fouling system is not applied (in case when anticorrosive protective coating is provided), the ship shall be subjected to survey and relevant certificates (refer to 2.4.2.1) shall be issued.

### 2.4.3 Dock survey.

- **2.4.3.1** When an anti-fouling system is applied on the ship, the following documents are required for the International Anti-Fouling System Certificate/Statement of Compliance of Anti-Fouling System:
- .1 Type Approval Certificate issued by RS to confirm the compliance with the AFS-Convention. In case of absence of the RS Type Approval Certificate, the relevant documents of another Organization authorized by the flag State may be accepted;
  - .2 Technical Data Sheet of coatings (Specification, Data Sheet);
  - .3 Material Safety Data (such information may also be contained in the standards and specifications);
- .4 The manufacturers document confirmed compliance of delivered paint with prototype (invoices, quality certificate for the batch, test reports, batch record card, etc).
- **2.4.3.2** When no Anti-Fouling System is applied on the ship or when an sealer coat is applied, the following documents are required for the International Anti-Fouling System Certificate/Statement of Compliance Anti-Fouling System of in respect to the upper layer of the coating to prove that it is not an Anti-Fouling System:

Technical Data Sheet of coatings (Specification, Data Sheet);

Material Safety Data Sheet (such information may also be contained in the standards and specifications);

**2.4.3.3** During the inspection, the Surveyor nominated by the Register shall:

verify if the coating information specified in the Type Approval Certificate (for Anti-Fouling System) or in the documents for the upper layer of the coating (for non-Anti-Fouling System) corresponds to the marking on the containers with paint;

visually monitor surface preparation and coating application work. The application of the new coating, degree of removal of the existing anti-fouling system prohibited by the AFS-Convention or whether the existing anti-fouling system has been covered with the sealer coat shall be verified.

- **2.4.3.4** Upon the results of the Report on Survey of the Ship (Form 6.3.10) is issued. The accompanying documents specified in 2.4.3.1 or 2.4.3.2 shall be attached to the Survey Report. It is also recommended to enclose the yard's or the coating manufacturer's reports on the surface preparation and coating application work (refer to 2.4.4.2).
- **2.4.3.5** Basing on the satisfactory results shown in the Survey Report, and accompanying documents, the International Anti-Fouling System Certificate (Form 2.4.30/2.4.30ec)/Statement of Compliance of

Anti-Fouling System (Form 2.4.30.1) with the Record of Anti-Fouling Systems (Form 2.4.31/2.4.31ec/2.4.31.1) (refer also to 2.4.2.5) are issued to the ship.

### 2.4.4 Survey outside the dock

- **2.4.4.1** The survey for the compliance with the AFS-Convention is normally reduced to checking the submitted documentation. As far as practicable, the Surveyor nominated by the Register shall confirm the presence/ absence of the Anti-Fouling System (comparing the actual colour with that indicated in the documents).
- **2.4.4.2** Due to the fact that the application of the coating upper layer on the submerged part of the outer hull was carried out without the RS Surveyor's supervision, to obtain the Certificate, in addition to the documents specified in 2.4.3.1 and 2.4.3.2, the Shipowner shall provide the Surveyor with the following documents: the yard or the coating Manufacturer's records of paint works which confirm that an existing anti-fouling system has been removed or covered by a sealer coat, and a new anti-fouling system or anticorrosive protective coating has been applied. Such a document may be the Final Inspection Report (refer to the recommended form in Appendix 2, Section 2 of the Guidelines on Technical Supervision of Ships under Construction).
- **2.4.4.3** After a satisfactory survey, the International Anti-Fouling System Certificate (Forms 2.4.30/2.4.30ec)/Statement of Compliance of Anti-Fouling System (Form 2.4.30.1) with the Record of Anti-Fouling Systems (Forms 2.4.31/2.4.31ec/2.4.31.1) as well as the Report on Survey of the Ship (Form 6.3.10 or Form 6.1.02) or Ship's Survey Statement (Form 6.1.03) showing the survey results are issued to the ship. The accompanying documents (specified in 2.4.3 and 2.4.4.2) shall be attached to the Report on Survey. If the results of the survey are unsatisfactory, only the Report on Survey is issued to the ship.
  - 2.4.5 The accompanying documents shall be available on board for Port State Control examination.

### 2.4.6 Sampling.

- **2.4.6.1** If the information about the coating applied is unavailable or insufficient to issue the International Anti-Fouling System Certificate/Statement of Compliance of Anti-Fouling System in accordance with 2.4.3 or 2.4.4, the specimens of paint for analysis during survey and certification can be taken either as wet paint from product containers, or dry paint film sampled from the hull in accordance with IMO resolution MEPC.104(49) and taking into account the following requirements:
- .1 taking samples and carrying out the analysis of the Anti-Fouling System are performed by the laboratory recognized by the Register. In case of absence of such a laboratory, the sampling and analysis shall be carried out in accordance with IMO resolution MEPC.104(49) in the presence of the Surveyor of the Register;
- .2 the position of sampling points on the ship's hull is determined by the laboratory conducting the sampling and analysis taking into account the ship's size and accessibility to the hull along the ship's length. If the laboratory is not recognized by the Register, the position of sampling points is determined by the RS Surveyor;
- .3 such typical areas of the underwater part of the ship's hull as bow, stern and midship areas shall be considered as representative areas of the ship's hull specified in 4.8.2 of IMO resolution MEPC.104(49);
- .4 if sampling takes place when the ship is afloat, access shall be provided to the part of the hull below waterline (the ship shall be in ballast, or listed, or trimmed). The coating at the sampling points shall be dry. The sampling points for the ship afloat shall be at least 15 cm below waterline;
- .5 upon the samples analysis, the documentation in accordance with IMO resolution MEPC.104(49) shall be submitted to the Register.
- **2.4.6.2** The International Anti-fouling System Certificate (Form 2.4.30/2.4.30ec)/Statement of Compliance of Anti-Fouling System (Form 2.4.30.1) with the Record of Anti-Fouling Systems (Form 2.4.31/2.4.31ec/2.4.31.1) are issued to the ship on the basis of the documentation drawn up after a satisfactory survey (refer to Appendices to IMO resolution MEPC.104(49)) and Report on Survey of the Ship (Form 6.3.10 or Form 6.1.02) or Ship's Survey Statement (Form 6.1.03). The documentation shall be attached to the Report on Survey.

### 2.5 SURVEY OF SHIPS IN COMPLIANCE WITH INTERNATIONAL CONVENTION FOR THE CONTROL AND MANAGEMENT OF SHIPS' BALLAST WATERS AND SEDIMENTS

### 2.5.1 The scope of the ship survey is set in compliance with IMO resolution A.1120(30).

In accordance with IMO resolution MEPC.127(53), the Ballast Water Management Plan (BWM Plan) shall be realistic, practical, and easy to use. At the same time, its feasibility shall be checked during the Plan approval, as reasonably practicable. In compliance with reg. E-1/1.1 of the BWM Convention, during the survey of the ship (not only the initial one), except for the mandatory requirements for survey, the RS surveyor shall evaluate the feasibility of the BWM Plan, as well as viable possibility of sampling in the points specified in the BWM Plan and practical ability of sampling for the ship's crew.

In case of satisfactory results of the initial/renewal/annual/intermediate survey, upon completion thereof, an International Ballast Water Management System (Form 2.5.4)/Statement of Compliance with the International Convention for the Control and Management of Ships Ballast Water and Sediments (Form 2.5.4-1) shall be issued/renewed/confirmed. Therewith, one shall be guided by the instructions of the Flag State MA, if available.

# 2.6 SURVEY OF SHIPS IN COMPLIANCE WITH THE CODE FOR THE TRANSPORT AND HANDLING OF HAZARDOUS AND NOXIOUS LIQUID SUBSTANCES IN BULK ON OFFSHORE SUPPORT VESSELS (OSV CHEMICAL CODE, IMO RESOLUTION A.1122(30))

Requirements of IMO resolution A.1122(30) cover the supply vessels, as well as other ships serving offshore oil and gas fields (except for mobile offshore drilling units, floating cranes, pipe-laying barges and floating hotels) as follows:

Requirements of OSV Code shall apply to the new supply vessels, i.e. the keels of which were laid or which were at the similar stage of construction on or after July 1, 2018.

The existing supply vessels the keels of which were laid or which were at the similar stage of construction from April 19, 1990 to July 1, 2018 shall be allowed to carry those cargoes, which are allowed for type 2 ships according to IBC Code, provided that these ships comply with the requirements of OSV Code, except for stability requirements of Chapter 2 of the mentioned OSV Code, and upon approval of the Flag State MA.

Ships, covered by provisions of OSV Code shall be subject to initial, annual, intermediate, additional and renewing surveys, carried out in compliance with the requirements of IBC Code, IGC Code and Annex II to MARPOL 73/78 as amended.

Should the results of initial/renewal survey, which confirms compliance with the applicable provisions of OSV Code be satisfactory, the RS surveyor shall issue a Certificate of Fitness for the maximum period of 5 years. The Classification Certificate, section "Other characteristics" shall have an entry reading as follows: "The ship is fit to carry hazardous and noxious liquid substances in bulk, as stated in the Certificate of Fitness".

The certificate issued in compliance with the requirements of OSV Code shall have the same force and receive the same recognition as the certificate, issued under regulation 7, Annex II to MARPOL 73/78 as amended and regulations 10 and 13, Chapter VII of SOLAS-74 as amended.

Should the results of annual/intermediate surveys be satisfactory, the RS surveyor shall make a confirming entry to the appropriate sections of the Certificate of Fitness.

IMO resolution A.1022(30) has substituted the earlier IMO resolution A.673(16) containing "Guidelines for the Transportation and Handling of Limited Amounts of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels" (hereinafter referred to as the Guidelines), which covered the supply vessels the keels of which were laid or which were at the similar stage of construction on and after April 19, 1990, as well as support vessels, constructed before April 19, 1990 (as specified in Chapter 7 of the Guidelines).

Possibility to apply the Guidelines as amended introduced by IMO resolution MSC.236(82) and IMO resolution MEPC.158(55)) to the existing supply vessels shall be approved by the Flag State MA of the ship. In case of MA's consent, survey and certification of the ship shall be carried out in compliance with regulation 1.5, Chapter 1 of the Guidelines.

### 2.7 SURVEY FOR COMPLIANCE WITH THE POLAR CODE REQUIREMENTS

- **2.7.1** In compliance with provisions of the Guidelines on Application of the International Code for Ships Operating in Polar Waters (the Polar Code), as a minimum, the following documentation proving that the requirements of Part I-A of the Polar Code applicable to the ship concerned are complied with, shall be submitted to the Register:
  - .1 general arrangement plan of the ship and tanks plan;
- .2 stability calculation in accordance with 4.3.1, Chapter 4 of the Polar Code for ships operating in areas and during periods where ice accretion is likely to occur, if typical loading conditions under icing are not specified in the Stability Booklet;
- .3 damage stability calculation for ice class ships of categories A and B constructed after 1 January 2017, if there are no information on compliance with the requirements of 4.3.2, Chapter 4 of the Polar Code in the Damage Stability Booklet;
  - .4 operating documentation:
  - .4.1 Polar Water Operational Manual (PWOM);
  - .4.2 Stability Booklet.

Upon review of the submitted set of documents, the Register shall send a Conclusion letter with confirmation of possibility of the ship's survey in order to issue the Polar Ship Certificate.

**2.7.2** In compliance with Part II-A of the Polar Code, the operation in polar waters shall be considered, where required and as applicable: in the Oil Record Books, the Guidelines and the Shipboard Oil Pollution Emergency Plan or the Shipboard Marine Pollution Emergency Plan in accordance with the requirements of Annex I to MARPOL 73/78; in the Oil Record Books, the Guidelines and the Shipboard Marine Pollution Emergency Plan or the Shipboard Marine Pollution Emergency Plan in accordance with the requirements of Annex II to MARPOL 73/78; the Garbage Record Books, the Garbage Management Plan, placards in accordance with the requirements of Annex V to MARPOL 73/78.

As applied to Annexes I, II and V to MARPOL 73/78 one shall be also guided by the provisions of IMO Circular MEPC.1/Circ.856, in case special instructions of the Flag State MA are available.

- **2.7.3** The scope of survey is set in compliance with IMO resolution A.1120(30) taking into consideration IMO Circular MSC.1/CIRC.1562 (refer to Annex 33 to the Guidelines). Additional instructions for survey are specified in the Guidelines on Application of the International Code for Ships Operating in Polar Waters.
- 2.7.4 In case of satisfactory results of the survey, upon completion thereof, the Polar Ships Certificate (Form 2.1.29) shall be issued/renewed/confirmed. The Certificate shall be supplemented with the Record of Equipment for the Polar Ship Certificate (Form 2.1.30).

### 3 CONVENTIONS, CODES AND OTHER DOCUMENTS OF INTERNATIONAL ORGANIZATIONS OTHER THAN IMO

#### 3.1 CONVENTIONS OF THE INTERNATIONAL LABOUR ORGANIZATION (ILO)

- **3.1.1** Surveys for compliance with the requirements of the ILO-152 Convention for filling in and distributing to the Register of Ship's Lifting Appliances and Cargo Handling Gear together with other documents are carried out in accordance with the instructions contained in 4.1.6 of the present Part worked out on the basis of the Rules for the Cargo Handling Gear of Sea-Going Ships of the Register of Shipping. Therewith, the additional requirements/instructions of the Flag State MA shall be complied with, where provided.
- **3.1.2** Surveys of crew accommodations for compliance with ILO Conventions "Accommodation of Crews Convention (Revised)" and "Accommodation of Crews (Supplementary Provisions) Convention" (ILO-92 and ILO-133 Conventions, respectively), "Crew Accommodation (Air-Conditioning) Recommendation" No. 140) and "Crew Accommodation (Noise Control) Recommendation" No. 141 as well as Standard A3.1 of Maritime Labour Convention, 2006 are carried out on the basis of the "Guidelines on On-board MLC Inspection" for compliance with requirements of Maritime Labour Convention, 2006.
- **3.1.3** Surveys for compliance with the requirements of the Maritime Labour Convention, 2006, are carried out on the basis of the "Guidelines on On-board MLC Inspection".

### 3.2 INTERNATIONAL CODE OF SAFETY FOR SHIPS USING GASES OR OTHER LOW-FLASHPOIT FUELS (IGF CODE)

- **3.2.1** Surveys for compliance with the requirements of the IGF Code are carried out as stipulated by Section 20 "Survey of Ships other than Liquefied Gas Carriers Utilizing Gas or Other Low Flash Point Fuels", Part III "Additional surveys of ships depending on their purpose and hull material" of the Rules. The Section also applies to gas carriers and other types of ships which do not fall into the area of exclusion as stipulated by Reg. 56.4 and 56.5 of Part G, Chapter II-2, SOLAS-74 as amended by IMO resolution MSC.392(95).
- **3.2.2** At the performance of the surveys of ships specified in 3.2.1, the Surveyor shall also be guided by below mentioned provisions of IACS UI GF1:
- .1 the position of the sensors in the liquefied gas fuel tank shall be capable of being verified before commissioning. At the first occasion of full loading after delivery and after each dry-docking, testing of high level alarms shall be conducted by raising the fuel liquid level in the liquefied gas fuel tank to the alarm point (refer to 15.4.2.3 of IGF Code).

Note. The expression "each dry docking" refers to:

the survey of the outside of the ship's bottom required for the renewal of the Cargo Ship Safety Construction Certificate and or the Cargo Ship Safety Certificate, for cargo ships;

the survey of the outside of the ship's bottom to be carried out every 60 months according to 2.5, Part II "Survey Schedule and Scope" of the Rules (also refer to 5.10.1 and 5.10.2 of IMO resolution A. 1120 (30)).

# 4. SOME INSTRUCTIONS AND RECOMMENDATIONS ON CARRYING OUT SURVEYS AND ISSUING DOCUMENTS

#### 4.1 ADDITIONAL INSTRUCTIONS ON CARRYING OUT SURVEYS OF EQUIPMENT

### 4.1.1 Survey of life-saving appliances.

- **4.1.1.1** General.
- **4.1.1.1.1** General provisions on technical supervision and guidelines on survey of life-saving appliances and arrangements are given in Section 1.

This Chapter contains general provisions on survey of life-saving appliances and arrangements the purpose and design of which comply with the provisions contained in the Rules for the Equipment of Sea-Going Ships. Life-saving appliances and arrangements the design of which is not under the provisions of the above Rules, but which are under the Register supervision, shall be surveyed with the amendments to be established by the Register in each particular case.

- **4.1.1.1.2** The provisions of this Chapter apply to ships covered by the provisions of SOLAS-74 as amended, as the additional requirements to those specified in Sections 1 and 2 (for ships not being introduced in the harmonized system of survey and certification, the provisions of Section 2 apply as practicable).
- **4.1.1.3** Life-saving appliances and arrangements shall be subjected to initial, special and annual surveys and, in special cases associated with some special conditions, to the occasional surveys.
- **4.1.1.1.4** The newly installed or replaced life-saving appliances, arrangements and outfit shall have documentation according to the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships.
- **4.1.1.1.5** After the repairs or installation of new life-saving appliances and arrangements, due tests shall be carried out, as stipulated for their manufacturing or installation on board, under the program approved by the Register. These tests shall be carried out in compliance with the Guidelines on Technical Supervision of Ships under Construction, and appropriate documents shall be issued.
- **4.1.1.1.6** During all types of surveys, the life-saving appliances and arrangements shall be made ready for survey so that to provide access, opening-up or dismantling, where necessary.

For the purpose of survey and operation test, the objects shall be presented in a fit/ serviceable condition.

During the survey, on the Surveyor's request, the documents (plans, specifications, diagrams, ship's files, certificates, etc) shall be submitted.

- **4.1.1.1.7** The extent of examinations and measurements, as well as opening-up, dissembling and dismantling, in each case, may be varied by the Surveyor, taking into consideration the ship's construction, service period, results of the previous survey, repairs and replacements, as well as results of the survey in accessible areas and operation tests.
- **4.1.1.1.8** During the initial survey, the list of life-saving appliances, their design, arrangement and installation on board shall be checked for compliance with the provisions of the Rules for the Equipment of Sea-Going Ships, as well as for compliance with the ship's purpose and type, ship's particulars, prescribed area of navigation and regulated parameters of the life-saving appliances. The Surveyor shall satisfy himself that the life-saving appliances are approved by the Register, otherwise their thorough examination will be needed to ensure compliance with the requirements, including, if necessary, the performance of relevant tests.

The technical condition of the life-saving appliances shall be checked regarding the quality of their manufacture, and also in order to detect any defects (wear, damage and failures) during the operation test, to check their readiness for use and serviceability. During this survey the ship's and technical documentation for the life-saving appliances shall be submitted to the Surveyor.

During the initial survey of ships in service and during any other surveys in case of change of flag/port of registry, when the Register documents on the ship's equipment, arrangements and outfit are re-issued, the availability on board of the Minimum Safe Manning Document issued by the Administration of the new port of registry is to be checked, and (if necessary) the Shipowner's written confirmation of the minimum manning, required to be not less than that specified in the above Safe Manning Document, is to be received for the purpose of ensuring that all the crew members are provided with life-saving appliances in compliance with the requirements of the RS Rules.

**4.1.1.1.9** During a special survey of the ship, the life-saving appliances, their design, arrangements and installation on board are to be examined to ascertain that they are still in compliance with the provisions of the Rules for the Equipment of Sea-Going Ships and with their regular characteristics.

The technical condition of the life-saving appliances shall be assessed to reveal possible defects.

**4.1.1.10** During an annual survey of the ship, the life-saving appliances shall be checked to ensure that they are found in a fit technical condition and to determine whether there were any modifications in the composition of the objects, their complete set, their construction and installation on board.

All modifications detected in the life-saving appliances shall be recorded in the applicable documents (refer to 4.1.1.2.21).

- **4.1.1.2** Survey of life-saving appliances.
- **4.1.1.2.1** The summarized scope of surveys of life-saving appliances during periodical surveys is set out in Table 2.3, Part I "Survey Regulations" of the Rules for the Equipment of Sea-Going Ships.

The above mentioned Table lists the ship's periodical surveys, beginning from the ship's construction, under technical supervision of the Register, or an organization authorized by the Register.

During the survey of the ship constructed without supervision of the Register or the body authorized by the Register for its substitution, the periodical surveys shall be carried out in accordance with this Table, beginning with the survey on the basis of which the scope of the initial survey is specified.

The scope of individual examinations, measurements, examinations and tests, as indicated in the Table, shall be determined by the attending Surveyor, on the basis of the particular survey conditions.

- **4.1.1.2.2** The life saving appliances and arrangements fitted on passenger ships shall be annually surveyed, in the scope of a special survey, except testing the launching appliances, life boats, rigid liferafts and equipment requiring a special survey.
- **4.1.1.2.3** The boat engines and mechanical drives, independent air supply systems, water spray systems of life boats fitted on oil tankers, winches of launching appliances and electrical equipment forming a part of the life-saving appliances shall be surveyed in accordance with the applicable requirements of Part II "Survey Schedule and Scope" of the Rules.

The radio equipment and life boat compasses of the life-saving appliances shall be surveyed in accordance with 4.1.3 µ 4.1.4.

**4.1.1.2.4** The life-saving appliances, under provisions of the Rules for the Equipment of Sea-Going Ships, however, installed on board in excess, shall be subjected to the Register supervision and further registration in the Register documents.

The life-saving appliances which are not under provisions of the Rules for the Equipment of Sea-Going Ships and fitted on board in addition to those required by the Rules, with the purpose of enhancing safety of life at sea, shall be subjected to the Register supervision, upon taking a special decision and in the scope as specified in each particular case.

**4.1.1.2.5** The life-saving appliances shall be of the type approved by the Register, and the fact that they were manufactured under the Register supervision shall be confirmed by the Register Certificates, along with other documents in accordance with the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships.

The life-saving appliances manufactured without the Register supervision (for instance, abroad) shall be approved by means of the Type Approval Certificate in accordance with the list of materials and products acknowledged by Type Approval Certificates.

The Life-saving appliances manufactured without the Register supervision and not possessing the Type Approval Certificate shall be liable for approval on the basis of a survey, consideration of the technical documentation, data of the conducted tests and certificates issued by the authorized supervisory bodies. If this information is insufficient, the relevant tests may be requested by the attending Surveyor.

**4.1.1.2.6** The life-saving appliances shall be surveyed together with their equipment and outfit.

The following shall also be checked during the survey of launching appliances:

means for warning passengers and crew about the abandonment;

illumination of the places where the survival craft is installed and launched;

identification tables or markings with the explanatory symbols;

means intended for prevention of any discharge of water from the ship into survival craft during abandonment:

ladders or their equivalents (instructions on testing storm ladders, safety mousing pendants, safety belts and safety lines are given in Annex 32);

skates, means for bringing the davit-launched survival craft against the ship's side and holding them alongside.

**4.1.1.2.7** During the special and annual surveys, lifeboats and rescue (rigid and inflatable) boats, rigid life rafts, and buoyaut apparatus shall be subjected to thorough examination (O), inflatable life rafts, hydrostatic release units, fastenings and weak link condition, fastening of falinic life rafts according to the hydrostatic release unit manufacturer's instruction, marine evacuation systems, immersion and antiexposure suits, thermal protective aids, lifebuoys and lifejackets shall be subjected to external examination (C), the engines fitted on board the motor boats shall be subjected to the operation test (P) by working the engine ahead and astern. During these tests the check shall be made to make sure that each inflatable liferaft, marine evacuation system, hydrostatic release device, inflated rescue boats, lifebuoy, lifejacket, immersion suit and anti-exposure suit is timely subjected to the periodical survey at the approved servicing station or specialized area recognized by the Register; thermal protective aids, rockets, hand flares, smoke signals, lights and electrical batteries used in lifeboats and rigid liferafts, lifebuoys, lifejackets, immersion and anti-exposure suits are checked whether they remain effective for the service for which they are intended and their workability is checked in accordance with its term of expiration. During the annual survey, launching appliances of the lifeboats shall be subjected to the operation tests (P). Each lifeboat shall be lowered a little to the embarkation position or, if the stowage position is the embarkation position, it shall be lowered a little for a short range, whenever practicable, one of the life-saving appliances shall be lowered to the water. During this survey the line-throwing appliances shall be subjected to external examination (C), and the expiration periods of the rockets shall also be checked. Launching appliance of all lifeboats, liferafts and rescue boats shall be checked in operation.

During the special survey, launching appliances of each lifeboat and liferaft, lowering and recovery gear and their mechanical drives and water spray system, as well as self-contained air support system for oil tanker boats shall be tested in operation.

During the survey of lifeboats and rescue boats, the provisions of Annex 49 (IACS Recommendation No.122) shall be considered. Thus, nonloaded rigid/combined rescue boats shall be weighted at each special survey of the ship.

During the special survey, each lifebuoy and rigid lifejacket shall be subjected to the check of timeliness of their periodical examinations at the specialized locations and servicing stations (E) recognized by the Register, each line-throwing appliance shall be subjected to thorough examination. The expiration periods of the rockets shall also be checked.

During the annual survey, the availability of lifebuoys and rigid lifejackets on board is checked, as well as their fitness, on the basis of external examination, proceeding from the values/ parameters of wear (refer to Annex 4), and taking into consideration the results of the previous inspection carried out by the ship's Administration. The objects which, in the opinion of the Surveyor, have defects, and their proper use is excluded, may be allowed for further use after repairs and examination at recognized by the Register servicing stations intended for life-saving appliances or specialized locations.

Periodical checks and tests of each lifebuoy and rigid lifejacket shall be carried out at the specialized locations intended for surveys, tests and repairs of the individual life-saving appliances (servicing stations, locations at ship repairing yards, etc.) and recognized by the Register in accordance with the Instruction for

Survey of Lifebuoys and Lifejackets at Specialized Locations Intended for Surveys, Tests of and Repairs to Personal Life-Saving Appliances (refer to Annex 4). The checks of the lifebuoys and rigid life jackets shall be carried out at specialized locations at least once every 5 years, and after repairs.

Each lifebuoy and lifejacket shall be subjected to checks together with self-igniting lights, sources of electrical power, lifelines, buoyant smoke signals, signal whistles and retro-reflecting material. The check that the periodical surveys were effected in a timely manner is controlled by the Surveyor responsible for the marking applied on each lifebuoy and lifejacket and in accordance with the Model Report for Lifebuoys and Lifejackets (refer to Annex 19).

Each inflated rescue boat shall be subjected to external examination. It is necessary to check that the material used for inflatable compartments, floor, rigid decking, seating arrangements, rubbing strips and transom is not damaged, broken, cracked, cut or worn out, also the check includes the condition of the lifelines becketed inside and outside the rescue boat, non-return and safety relief valves and permanent marking.

During annual and special surveys of the marine evacuation systems (MES) it is necessary to check, by external examination, that the MES containers are not damaged and no defects are revealed, that the markings are applied as required, and that the launching and operating instructions are marked on or in the vicinity of the container.

**4.1.1.2.8** The immersion and anti-exposure suits shall be thoroughly examined by the attending Surveyor during annual and special surveys. During this check, the material and seams, lights, batteries, whistles, retro-reflecting material, arrangements to minimize the free air in the legs of the suit and zip fasteners shall be examined.

At intervals not exceeding three years each immersion and anti-exposure suit shall be surveyed and tested at the servicing stations intended for life-saving appliances or specialized stations. The stations shall be recognized by the Register. During this check, the material, seams and zip fasteners of the immersion suit and anti-exposure suits shall be hermetically tested by the inflating method as recommended. This check shall be carried out every year for immersion and anti-exposure suits over ten years of age. (The air pressure test may be carried out on board ship if suitable equipment is available).

A suitable head piece, fitted with a means to inject air into the suit, shall be inserted into the face orifice of the suit and secured so as to minimize leakage around the face seal. A low-pressure monitoring device, either integral to the valve for air injection or as a separate device, shall also be inserted. If the suit is fitted with detachable gloves and/ or boots, the wrists and/ or cuffs shall be sealed by inserting a short length of suitable diameter plastic pipe and securing the gloves and/ or boots with suitable wire ties or hose clamps. The zipper shall be fully zipped, and any face flap closed. The suit shall then be inflated to a pressure of 0,7 to 1,4 kPa. If auxiliary inflatable means of buoyancy is provided, it shall be inflated through the oral valve to a pressure of 0,7 kPa or until firm to the touch.

Each seam and closure of the suit — and each seam, oral tube and attachment points and joint or valve of any auxiliary inflatable means of buoyancy — shall then be covered with a soupy water solution containing enough soap to produce bubbles (if leakage is noted at foot valve to the extent that air pressure cannot be maintained, the valves shall be sealed for the test).

If leaks are revealed by the propagation of bubbles at seams or closures, the leaking areas shall be marked and, after cleaning the suit thoroughly with fresh water and drying it, repaired in accordance with the suit manufacturer's recommendations.

Any repairs to a suit shall be carried out by a facility which has access to the original manufacturer's recommended servicing instructions, parts and adhesives, and suitably trained personnel.

If the immersion suits and anti-exposure suits are provided with inflatable life jackets, the latter shall be annually tested at the servicing stations intended for life-saving appliances and recognized by the Register, as recommended by the Manufacturer.

**4.1.1.2.9** The thermal protective aids (TPA) shall be subjected to checks when the tightness of their packing is broken. In this case, the material, seams and zip fasteners or other arrangements for closing TPA shall be externally examined along with the instruction for donning the thermal protective aid (the availability and condition of this instruction).

Those thermal protective aids, the service life of which has not expired, may not be subjected to such examination, unless the tightness of their packing is broken.

Those thermal protective aids, the service life of which has expired, may be replaced, unless they have the documentation on testing developed by the Manufacturer and the terms/ conditions aimed at prolonging their service life are stipulated.

The thermal protective aids shall be checked in accordance with the test procedure developed by the Manufacturer and approved by the Register.

The thermal protective aids may be tested, apart from the Manufacturer, at the recognized by the Register servicing stations intended for life-saving appliances or specialized stations. No approval of the Manufacturer shall be required for the servicing station intended for life-saving appliances or specialized stations.

The timeliness of checking the thermal protective aids shall be controlled by the markings applied on each thermal protective aid and according to the Model Reports for Lifebuoys and Lifejackets (refer to Annex 19).

**4.1.1.2.10** Every inflatable liferaft, inflatable lifejacket, inflated rescue boat, marine evacuation system and hydrostatic release unit shall be serviced at the servicing station recognized by the Register and competent to service them, which maintains proper servicing facilities and employs only properly trained personnel and complies with the requirements contained in Annex 18.

Every inflatable raft, inflatable lifejacket, hydrostatic release units, marine evacuation systems and inflated rescue boats shall be serviced at the servicing stations at intervals not exceeding 12 months, as well in case of entry into water, activation of gas inflation system and detection of damage. In that case, where servicing of this equipment is not impracticable, the following shall be followed:

for the ships covered by the requirements of SOLAS-74 as amended upon approval of the ship's Flag State MA the Register may extend that time period up to 18 months in compliance with IMO MSC.1/Circ.955;

for the ships which are not covered by the requirements SOLAS-74 as amended, the transfer of the equipment servicing term can be provided for the period of less than 18 months upon the RHO decision in response to a written request of the shipowner.

The inflatable liferafts shall be checked together with their containers and hydrostatic release units.

The periodical checks of inflateble liferafts and lifejackets shall be subjected to periodical checks at the servicing stations intended for life-saving appliances, tested for defects and repaired in accordance with the Recommendation on Conditions of Servicing Stations for Inflatable Liferafts as recognized by the Register (see Annex 18) and the operational and repair documentation for inflatable liferafts and lifejackets approved by the Register.

The timeliness of the mandatory periodical examination of inflatable liferafts and lifejackets, hydrostatic release units and marine evacuation systems, inflated rescue boats at the servicing stations intended for life-saving appliances shall be controlled by the attending Surveyor by checking the entries made in the certificates issued for liferafts, hydrostatic release units, marine evacuation systems and air vessels and reports for.Lifebuyos and Lifejackets (see Annex 19).

At the same time, the check is to be made whether the brands/ trademarks on the lifejackets and seals on the containers (of liferafts and systems) are applied.

All repairs and maintenance of inflated rescue boats shall be carried out in accordance with the instructions provided by the Manufacturer. In case of emergency, repairs may be carried out on board, however, permanent repairs shall be carried out at the recognized station servicing station.

In addition, or when servicing is maintained at the servicing station intended for inflatable life-saving appliances, each marine evacuation system shall be put in operating position from the ship at intervals approved by the Register but not exceeding 6 years.

For the approved in compliance with IMO circular MSC.1/1328 standard inflatable life rafts inflatable liferafts of a new type, upon agreement with the Register, intervals may be extended, provided that:

each inflatable liferafts of a new type shall be checked and tested for compliance with the above standard for prolonged intervals between servicing periods not exceeding 30 months;

liferaft system shall be checked on board by qualified personnel at intervals not exceeding 12 months, however, where it is impracticable, the Register may extend this period to 18 months;

- at intervals not exceeding 5 years, each inflatable liferaft of a new type shall be serviced at the servicing station (refer to Annex 18).
- **4.1.1.2.11** During the annual and special surveys it is necessary to check whether each lifeboat and rigid liferaft is fully equipped, the condition and fastening of the equipment, radio equipment, searchlights and portable fire extinguishing means of motor boats.

The Guidelines on testing of launching appliances and liferafts by a proof load, of watertightness of the lifeboats, their watertight lockers or compartments, rigid liferafts and devices during a special survey are given in the footnote to Table 2.3, Part I "Survey Regulations" of the Rules for the Equipment of Sea-Going Ships.

- **4.1.1.2.12** Falls used in launching shall be inspected periodically with special regard for areas passing through sheaves, and renewed when necessary due to deterioration of the falls or at intervals of not more than 5 years, whichever is the earlier.
  - 4.1.1.2.13 Launching appliances shall be:
  - .1 maintained in accordance with instructions for on-board maintenance (refer to 4.1.1.2.19);
  - .2 subject to a thorough examination at the annual surveys of the ship;
- .3 upon completion of the examination in 4.1.1.2.13.2 be subjected to a dynamic test of the winch brake at maximum lowering speed. The load to be applied shall be the mass of the survival craft or rescue boat without persons on board, except that, at intervals not exceeding five years, the test shall be carried out with a proof load equal to 1,1 times the weight of the survival craft or rescue boat and its full complement of persons and equipment.
- **4.1.1.2.14** Lifeboat or rescue boat on-load release gear, including free-fall lifeboat release systems, shall be:
  - .1 maintained in accordance with instructions for on-board maintenance (refer to 4.1.1.2.19);
  - .2 subject to a thorough examination and operational test during the annual surveys of the ship;
- .3 operationally tested under a load of 1,1 times the total mass of the boat when loaded with its full complement of persons and equipment whenever the release gear is overhauled. Such over-hauling and test shall be carried out at least once every five years.

The operational testing of free-fall lifeboat release systems shall be performed either by free-fall launch with only the operating crew onboard or by a simulated launching carried out based on guidelines developed by IMO<sup>1</sup>.

- 4.1.1.2.15 Davit-launched liferaft automatic release hooks shall be:
- .1 maintained in accordance with instructions for on-board maintenance (refer to 4.1.1.2.19);
- .2 subject to a thorough examination and operational test during the annual surveys of the ship; and
- .3 operationally tested under a load of 1,1 times the total mass of the liferaft when loaded with its full complement of persons and equipment whenever the automatic release hook is overhauled. Such overhauling and test shall be carried out at least once every five years.
- **4.1.1.2.16** For examinations, maintenance, repairs and tests mentioned in 4.1.1.2.13 to 4.1.1.2.15, the following provisions shall be referred to:
- .1 for ships engaged on international voyages and covered by requirements of SOLAS-74 as amended: Pursuant to Regulations III/20.3.1 and III/20.11 (introduced by IMO resolution MSC.152(78)) and in accordance with IMO Circular MSC.1/Circ.1206/Rev.1 implemented to replace the previously adopted IMO Circulars MSC/Circ.1049, MSC/Circ.1093, MSC/Circ.1136, MSC/Circ.1137 and MSC.1/Circ.1206:
- .1.1 all thorough examinations, maintenance, repairs, operational annual and five year interval tests as required by reg. III/20.11 SOLAS-74 as amended (i.e. in respect of maintenance, repair, thorough examinations and tests of launching arrangements, lifeboat or rescue boat on-load release gears as well as davit launched life raft automatic releasehooks) shall be carried out by the manufacturer's representative or a firm (service supplier) properly specialized and authorized for such an operation. Pursuant to IACS UI SC144 thorough examinations, repairs and operational tests as required by reg. III/20.11 SOLAS-74 and carried out in five-year intervals shall be done in the presence of the RS surveyor.

- .1.2 service suppliers engaged in operations mentioned in 4.1.1.2.16.1.1 shall be authorized by Flag State MA and be certified for these operations for equipment of the brand and type for which services are rendered in accordance with IMO Circular MSC.1/Circ.1277. The similar requirement applies to manufacturers acting as service suppliers;
- **.1.3** individual Flag State MAs have given the appropriate guidelines on authorization procedure of firms in order to perform operations mentioned in 4.1.1.2.16.1.1.

According to guidelines of individual Flag State MAs, these operations may be performed by manufacturers and recognized manufacturers, representatives or service suppliers or persons authorized directly by the Flag State MA or recognized organizations acting on behalf of the Flag State MA (in particular, IACS Classification Societies) or other Flag State MA which is a party to SOLAS-74 as amended;

.1.4 when performing operations mentioned in 4.1.1.2.16.1.1 on ships under the valid RS class service suppliers shall be recognized by RS in compliance with Section 8, Part I "General Regulations for Technical Supervision" of the Rules for the Technical Supervision During Construction of Ships and Manufacture of Materials and Products for Ships. If the service suppliers are not recognized by the RS for performing these operations on ships, the Register may allow authorization from:

Flag State MA;

other recognized organizations properly authorized and acting on behalf of the Flag State MA; other organizations considered acceptable for the Flag State MA (for example, other contracting governments to SOLAS-74 as amended);

.1.5 in order to allow the Register to make a decision on whether service suppliers with no RS recognition or authorization according to IMO Circular MSC.1/Circ.1277 may be permitted for operations mentioned in 4.1.1.2.16.1.1 for equipment of particular brand and type to avoid extension of survey dates, the shipowners shall submit the following information well in advance (but not later than one (1) month before the intended survey date to the Register Branch Offices to which the application for the ship's survey is supposed to be requested:

type and name of manufacturer of lifeboats, rescue boats as well as the launching arrangements on board the ship;

date and place of intended ship's submittal to survey;

a written confirmation, if applicable, that:

the manufacturer does not conduct its activity and provides no technical support in respect of particular brands and type of equipment;

there is no manufacturer's representative in the area of the ship's survey;

name of a service supplier which will be nominated for operations mentioned in para 1 and a document confirming that this supplier complies with requirements of IMO Circular MSC.1/Circ.1277.

When the Branch Office receives the shipowner's application mentioned in 4.1.1.2.16.1.5, this Branch Office shall review the received information and make decision on its own in accordance with the instructions in Table 4.1.1.2.16 and forward the received information and its opinion to RHO for getting a decision:

- .2 for ships not covered by requirements of SOLAS-74 as amended, refer to the following:
- **.2.1** examinations, maintenance, etc. mentioned in 4.1.1.2.13.4 to 4.1.1.2.15 shall be carried out: by manufacturer or representative recognized by this manufacturer; or
- a firm acting as a service supplier authorized by the Flag State MA or recognized organization acting on behalf of the Flag State MA (in particular, IACS Classification Societies); or

ship's crew in the presence of the RS surveyor<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup>Unless otherwise stated by Flag State MA, the shipowner or company responsible for ship safety management may assign a crew for annual thorough examinations and operational tests of objects mentioned in .2.2.1. The operations shall be performed under supervision of officers in accordance with operating and maintenance instructions for equipment and procedures for safety management as applicable. The completion certificates which also confirm the serviceability of objects shall be signed by crew members and Company's representatives or masters with appropriate stamps/seals.

Table 4.1.1.2.16 Conditions for authorization of service suppliers in compliance with IMO Circulars MSC.1/Circ.1206/Rev.1 and MSC.1/Circ.1277

		Service supplier							
		RS recognized and		Authorized by the Flag on behalf of the Flag State MA for the RO/ACS recognized and acting by the Flag State MA, and					
		Certified by the manufacturer of particular equipment	Not certified by the manufacturer of particular equipment	work per- formance on board a particular ship and on particular equipment	Certified by the manufacturer of particular equipment	Not certified by the manufacturer of particular equipment	behalf of the Flag State MA or certified by the manufacturer		
1. C	onditions for authorization								
1.1	Manufacturer's maintenance manuals and associated technical documentation for operation of particular equipment is available to the service supplier	yes	yes <sup>1,2</sup>	yes <sup>1</sup>	yes	yes	yes <sup>2</sup>		
1.2	Valid documentation of personnel certified to carry out checks and tests in compliance to MSC.1/Circ.1277 is available.	yes	yes <sup>1,2</sup>	yes <sup>1</sup>	yes	yes	yes <sup>2</sup>		
1.3	Confirmation that an equipment manufacturer is no longer in business	none	yes, or 1.4 or 1.5, if applicable	n/a <sup>1</sup>	none	yes <sup>2</sup> , or 1.4 or 1.5 if applicable	yes <sup>2</sup> , or 1.4 or 1.5, if applicable		
1.4	Confirmation that an equipment manufacturer no longer provides technical support for particular equipment	none	yes, or 1.3 or 1.5, if applicable	n/a <sup>1</sup>	none	yes <sup>2</sup> , or 1 3 or 1.5, if applicable	yes <sup>2</sup> , or 1 3 or 1.5, if applicable		
1.5	Confirmation that within the scheduled period in the area of work performance the manufacturer's representative and/or service supplier certified in operations for particular equipment (incapable to perform, refuses to perform the work) is absent or unavailable	none	yes, or 1.3 or 1.4, if applicable	n/a <sup>1</sup>	none	yes <sup>2</sup> , or 1.3 or 1.4, if applicable	yes <sup>2</sup> , or 1.3 or 1.4, if applicable		
1.6	Confirmation (where applicable) that the service supplier has been previously approved by the Flag State MA or Register under its authorization in operation for the equivalent equipment	none	yes	yes	yes	yes	yes		
1.7	Flag State MA's authorization in operation by a nominated service supplier on a particular vessel and / or equipment is available.	none	yes <sup>2,3</sup>	n/a	none <sup>2</sup>	yes <sup>2</sup>	yes <sup>2</sup>		
1.8	Operations are carried out under supervision of the RS surveyor	none <sup>4</sup>	on the RS decision and/ or Flag State MA <sup>1,2,4</sup>	none <sup>1,2,4</sup>	none <sup>1,2,4</sup>	none <sup>1,2,4</sup>	yes <sup>1,2</sup>		

Table 4.1.1.2.16 — continued

		Service supplier										
		RS recognized and		Authorized by the Flag on behalf of the Flag State MA, for the and			1					
		Certified by the manufacturer of particular equipment	Not certified by the manufacturer of particular equipment	work per- formance on board a particular ship and on particular equipment	Certified by the manufacturer of particular equipment	Not certified by the manufacturer of particular equipment	behalf of the Flag State MA or certified by the manufacturer					
RS I	RS Branch Office and RHO activities on authorization of service providers for work performance											
2.1	The RS Branch Office for ship survey shall	1) Review the documentation for compliance with conditions; 2) Make a decision during the ship's survey	Review the shipowner's i application for compliance with conditions,     Check the data submitted in the shipowner's application;     Make decision with regard to additional requirements of Flag State MA (where available).     Inform the shipowner of the decision taken	the docu-	1) Review the documentation for compliance with conditions; 2) Make a decision during the ship's survey.	shipowner's application for compliance with	Check the data submitted in the shipowner's application;     Forward the documents					
2.2	The RS Branch Office for supervision in service	n/a (not applicable)	[files]	[files]	[files]	[files]	[files]					
2.3	The RS Head Office (RHO) shall	n/a	n/a	n/a	n/a	n/a	Review the shipowner's application and the RS Branch Office opinion;     If necessary, forward RS opinion to the Flag State MA;     Forwards the decision agreed with the Flag State MA to the RS Branch Office for ship survey and RS Branch Office for supervision in service.					

### Notes:

- 1 unless otherwise provided by the Flag State MA under conditions for authorization of a particular service providers.
  2 unless otherwise provided by the Flag State MA instructions.
  3 not stipulated for the ship flying the RF flag.
  4 mandatory during five years interval audits and tests.

Thorough examinations, repairs and operational tests carried out in five-year intervals shall be done in the presence of the RS surveyor:

**.2.2** For the RS authorization of service suppliers for operations on boards ships under the valid RS class according to 4.1.1.2.16.2.2 mentioned above, no mandatory confirmation on the possibility for performance of operations with respect to a particular type and/or brand of the equipment on board the ship is required.

The thorough examination, repairs and tests specified in 4.1.1.2.13 to 4.1.1.2.15, shall be done in the presence of the RS surveyor.

On completion of servicing the launching appliances, on-load release gear and hook releasing mechanisms the personnel engaged in these operations shall make relevant entries about testing or technical servicing in the appropriate log/ record book available on board. Additional requirements for survey of life-saving appliances are given in MR on repair.

**4.1.1.2.17** For newly installed or replaced launching appliances, lifeboats and rescue boats, lifeboat engines, liferafts, instruments, marine evacuation systems, hydrostatic release units, lifebuoys, lifejackets, immersion and anti-exposure suits and line-throwing appliances, the Register certificates shall be issued. The Manufacturer's documents in compliance with the Rules for Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships shall be issued for the equipment fitted on the lifeboats, liferafts and other items of life-saving appliances.

The newly installed launching appliances shall be tested by a proof load.

On completion of repairs, the life-saving appliances shall be tested by a proof load, proof pressure, subjected to watertightness test and other types of tests in accordance with the Guidelines on Technical Supervision of Ships under Construction.

- **4.1.1.2.18** For the assessment of the life-saving appliances technical condition, examinations and tests as specified in 4.1.1.2.13 to 4.1.1.2.15, 4.1.1.2.18.1 to 4.1.1.2.18.3 shall be applied.
- 4.1.1.2.18.1 For lifeboats and rigid or rescue boats of the combined type, a load shall be suspended from the lifting hooks or placed on blocks so that the total mass of the boat exceeds the working load for lifeboat of metallic construction by 25 per cent and for others by 100 per cent (loading is done in successive manner so that the total mass of the boat exceeds the working load by 25, 50, 75 and 100 %). Lifeboats on ships constructed before 1 July 1986 are loaded so that the total mass of the boat exceeds the working load for lifeboat of metallic construction by 25 % and for others by 100 %. The working load corresponds to the mass of the boat with a full complement of people, equipment, fuel and engine and shall be defined by documents issued by the Register and/or manufacturer. Test load must be distributed uniformly in the life-boat. Flooding test is not allowed. The working load corresponds to the mass of the boat with a full complement of people, equipment, fuel and engine. In each case the test load magnitude must be consistent with the Register. The lifeboat shall remain loaded not less than 10 min (until the keel deflection and breadth change are fixed/ stabilized). The test load shall not result in residual deformation which is checked by deflection of the keel and change in the boat's breadth. If the lifeboats are made of GRP, such measurements shall be taken after a period of time sufficient to permit the GRP to recover its original shape (approximately 18 hours).

The lifeboats which fail the strength test, may be allowed to the repeated testing. Elimination of defects shall be made by the manufacturer or, when the manufacture is missing, by the RS-authorized firm in a way agreed with RS. The lifeboats failed the test shall be replaced.

- **4.1.1.2.18.2** Test of inflated rescue boat by the test load is test of boat suspended on a bridle or a lifting hook at a 10 per cent overloading calculated of the mass of the boat with full complement of persons and equipment. The boat has to be inflated and stabilized at a working pressure. The boat has to remain suspended for not less than 5 min. Safety valves have to support the usual working pressure of pipes of buoyancy and their main form during suspension. As a result of test all suspended elements, fastenings or other components of the inflated boat shall have no damage.
- **4.1.1.2.18.3** Watertightness tests of lifeboats shall be carried out after strength tests as specified in 4.1.1.2.18.1. During the waterproof test, each lifeboat shall be operated with a working load for at least 2 h. No water shall enter the life boat, however, for wooden boats entering of water to the lower edge of keelson is permitted.

The lifeboat compartment shall be hydraulically tested by filling with water up to the level exceeding the upper edge of the compartment by 0,74 m.

The demountable watertight lockers and water stowage compartment of rigid liferafts and buoyancy equipment shall be tested while submerged in water or filling with water to the upper edge (their closed upper edge being subjected to checking when inverted).

**4.1.1.2.19** Each ship shall be provided with the instruction for on-board maintenance of each type of life-saving appliances, which shall be easily understood, illustrated, wherever possible, and contain the following information:

checklist of inspections as required;

maintenance and repair instructions;

schedule of periodic maintenance;

diagram of lubrication points with the recommended lubricants;

list of replaceable parts;

list of sources/places of stowage of spare parts;

log for records on inspections and maintenance.

**4.1.1.2.20** For assessment of life-saving appliances technical condition, the following standards shall be construed as guidance:

lifeboats, rigid liferafts and damaged equipment with cracks, holes and dents, wooden boats when rotten and excessively leaky are not permitted for operation;

average wear of metal constructions shall not exceed 1/5 of as-built thickness;

stressed details with average wear of 1/10 of as-built thickness or 1/10 of their diameter and more shall be replaced;

wire cable shall be replaced when 1/10 and more of the total number of wires is broken in any length equal to eight times the rope diameter as well as in case of excessive deformation of the cable;

natural fibre rope shall be replaced when at least one wire strand is broken, when rotten, excessively deteriorated or deformed;

lifebuoys, lifejackets, immersion suits and anti-exposure suits shall be repaired and replaced when their proofing is damaged or rotten, the lifebuoy is deformed, its material is damaged, deteriorated with features of natural aging, its tape and grabline strength is impaired and its shape and characteristics of retro-reflective marks are not as required;

rockets, hand flares, smoke signals, self-igniting lights and electrical batteries used in life-saving appliances are to be replaced when the term of their service expires irrespective of the due dates of periodical surveys.

If the survey reveals that the design and installation of life-saving appliances are not in compliance with the requirements of the Rules for the Equipment of Sea-Going Ships or are unserviceable, the ship is recognized as not complying with the Rules for the Equipment of Sea-Going Ships.

**4.1.1.2.21** Fulfilment of the requirements set forth in the Rules for the Equipment of Sea-Going Ships shall be confirmed with documents specified in Section 6, Part I "General", RS internal procedures. As regards the ships covered by the requirements of SOLAS-74 as amended, the requirements to documents are given in 1.7, 2.1.1, the RS internal procedures for issuing the RS records.

### 4.1.2 Survey of signal means.

- 4.1.2.1 General.
- **4.1.2.1.1** When signal means are surveyed, the same provisions as those applicable for the survey of life-saving appliances shall be followed, see 4.1.1.1.
  - **4.1.2.2** Procedure and scope of survey.
- **4.1.2.2.1** The summarized scope of survey of signal means during periodical surveys of a ship is given in Table 2.3 of Part I "Survey Regulations" of the Rules for the Equipment of Sea-Going Ships.

On expiration of a five-year interval, the surveys shall be repeated.

The signal means installed on board the passenger ships shall be surveyed annually in the scope of a special survey.

- **4.1.2.2.2** The electrical equipment pertinent to the signal means shall be surveyed in compliance with the requirements of 2.4.7 of Part II "Survey Schedule and Scope" of the Rules.
- **4.1.2.2.3** The signal means shall be of the type approved by the Register which shall be confirmed, when they are manufactured under the supervision of the Register, by the Register Certificates for lanterns and sound signal means and by the Manufacturer's documents for signal shapes and pyrotechnic signal means in compliance with the Rules for Technical Supervision during Construction of Materials and Products for Ships.

The signal means manufactured without the Register technical supervision (for example, abroad) shall be approved by means of the Type Approval Certificate in accordance with the list of materials and products acknowledged by the Register Type Approval Certificates.

The signal means manufactured without the Register technical supervision and not possessing the type Approval Certificate, shall be liable for approval on the basis of a survey, data of the conducted tests and certificates issued by the authorized supervisory bodies. In case of insufficient data, the attending Surveyor may demand to conduct the relevant tests.

**4.1.2.2.4** During special and annual surveys, the navigation lights, flashing lights and sound signal means shall be tested in operation (P). In this case the light and sound alarms of navigation lights and the automatic controls ensuring sounding on the whistle in fog shall be tested in operation. During this survey, the signal shapes and pyrotechnic signal means shall be subjected to an external examination (C).

During a special survey, the navigation and flashing lights shall be subjected to a thorough examination (O). During the survey the following shall be checked: the correct installation of the lights and sound signal means, whether it is possible to install spare lights correctly at their prescribed places or whether it is possible to use combined lights, the availability of spare parts for lights and for the devices for igniting the signal rockets, operational technical condition of signal means and the service periods of pyrotechnic signal means.

**4.1.2.2.5** During the initial survey, the list of signal means, their design and installation on board shall be checked for compliance with the requirements of the Rules for the Equipment of Sea-Going Ships, as well as for compliance with the ship's purpose, type, particulars and area of navigation. The Surveyor shall ascertain that the signal means are of the type approved by the Register.

The compliance with the structural requirements of the Rules for the Equipment of Sea-Going Ships, namely, as to light colour, minimum range of visibility, arc of visibility of the navigation lights, audibility range, sound intensity and tone of the sound signal means, light colour, luminous intensity, altitude and range of audibility of the pyrotechnic signal means shall be specially checked with the use of appropriate equipment and confirmed on the basis of the approved standards or by means of certificates and other documents.

In case of insufficient data, specific tests aimed at checking the regulated characteristics may be requested.

**4.1.2.2.6** If the availability, design or installation of the signal means are not in compliance with the requirements of the Rules for the Equipment of Sea-Going ships, the ship is found not fit for navigation.

The pyrotechnic signal means, on expiration of their storage period, shall be replaced, irrespective of the due dates of the periodical surveys.

**4.1.2.2.7** Fulfilment of the requirements set forth in the Rules for the Equipment of Sea-Going Ships shall be confirmed with documents specified in Section 6, Part I "General", the RS internal procedures. As regards the ships covered by the requirements of SOLAS-74 as amended, the requirements to documents are given in 1.7, 2.1.1, the RS internal procedures for issuing the RS records.

### 4.1.3 Survey of radio equipment.

- 4.1.3.1 General.
- **4.1.3.1.1** The installation of new radio equipment on board a ship or replacement of the existing radio equipment shall be effected provided that the type of the radio equipment and technical documentation for its installation are approved by the Register.

The documents for the new radio equipment installed onboard additionally or instead of the existing equipment and prescribed by the Rules for Technical Supervision during Construction of Ships and

Manufacture of Materials and Products for Ships shall be submitted to the Surveyor. These documents shall confirm the compliance of the radio equipment with the requirements of the Rules.

After repairs, the radio equipment shall be tested so as to check the main parameters in the scope as specified by the attending Surveyor, with regard to the scope and nature of repairs (see also 4.1.3.2.8).

The new equipment shall be surveyed in the scope of an initial survey.

On passenger and cargo ships the examination of the radio equipment on board (including the radio equipment of the life saving appliances) shall be carried out by a service station, recognized by the Register for conducting the preliminary surveys of radio equipment (speciality code 22006002MK). The preliminary survey shall be carried out by a qualified specialist of the recognized service station with the use of appropriate test and measuring devices allowing to carry out measurements of the radio equipment parameters required by this Chapter (radio transmitter output, frequency shift/ deviation, emergency battery characteristics, etc.). Report on examination of radio equipment issued according to the form established by the Register shall be submitted to the Surveyor to the Register prior to survey of radio equipment.

Survey of radio equipment shall be carried out by the Surveyor to the Register, having qualification, at least, as a radio-surveyor.

**4.1.3.1.2** During all types of surveys, the radio equipment shall be made ready for the examination so that to provide, where necessary, access, opening-up, and dismantling.

The attending Surveyor shall be given an opportunity to examine:

areas in which the radio equipment is installed;

items of radio equipment;

instruments, measuring instruments, spare parts and technical documentation, in cases where the working ability of the radio equipment is maintained by the qualified personnel and it is repaired at sea; installation and fastening of radio equipment;

technical condition and operational testing of the radio equipment;

technical condition of sources of energy and their testing in operation (except sources of energy for emergency position indicating radio beacons, ship's radar transponders, two-way VHF radiotelephone apparatus);

areals and earthing.

During every survey, the ship's officers shall provide for the presence of a properly qualified specialist who is in charge of the maintenance of the radio equipment. The plans, schemes, specifications, files, technical passports, documentation and ship's radio log, as required, shall be submitted on the Surveyor's request.

- **4.1.3.2** Scope of examination and survey.
- **4.1.3.2.1** The summarized scope of examinations and surveys of ship's radio equipment during periodical survey is given in Table 2.3, Part I " Survey Regulations" of the Rules for the Equipment of Sea-Going Ships.

The scope of particular examinations, measurements and operational tests, as given in the Table, shall be established by the Surveyor, on the basis of the corresponding items of this Chapter and particular conditions of the survey. Table 2.3 of the aforesaid Part specifies the periodical tests which start after the initial survey. On the expiration of every five-year interval, the surveys are repeated.

- **4.1.3.2.2** The electrical equipment mechinery, systems and piping structurally associated with the radio equipment or incorporated in its systems shall be surveyed in accordance with the commensurate Sections of these Guidelines.
- **4.1.3.2.3** Radio equipment installed on board the ship at the discretion of the Shipowners in addition to the mandatory equipment required by the Rules for the Equipment of Sea-Going Ships to enhance safety of navigation and safety of life at sea shall be subjected to the Register technical supervision to the full extent. In case of failure of optional equipment, the Report on Survey of the Ship (Form 6.3.10) shall be appropriately filled with records, however, such a failure cannot be considered as a ground for non-issuing the Register documents to the ship. In this case the Surveyor shall ascertain that the functioning or technical condition of optional equipment will not affect the serviceability of radio equipment required by

the Register rules or other equipment and will not cause any failure of such equipment, and that such optional equipment will not cause danger to human life, fire or explosion on board.

In cases where the routine operation of the radio or other equipment required by the Rules for the Equipment of Sea-Going Ships is affected by the functioning, operating and disposition of the optional equipment, the attending Surveyor shall demand the elimination of such negative influence causes.

**4.1.3.2.4** Annual survey.

**4.1.3.2.4.1** The scope of the annual survey of radio equipment is given in Table 2.3, Part I "Survey Regulations" of the Rules for the Equipment of Sea-Going Ships.

**4.1.3.2.4.2** If the serviceability of the radio equipment fitted on board in accordance with the Rules for the Equipment of Sea-Going Ships is ensured by the shore-based maintenance and repairs center/facility, this fact shall be confirmed by the Agreement for Shore-Based Maintenance and Repairs concluded with the Manufacturer recognized by the Register, or with the center/ facility recognized by the Manufacturer, and such an Agreement shall be produced to the attending Surveyor. It is recommended, prior to the periodical survey conducted by the Surveyor, that the Company effecting the maintenance and repairs under the above-mentioned agreement shall perform annual technical maintenance of the radio equipment, including the check of:

technical condition of the equipment;

parameters and serviceability in accordance with the programs and methods worked out by the Manufacturer;

transmitter frequency stability;

capacity of the accumulator batteries;

service life of the source of power for the emergency position indicating radio beacons and ship's radar transponders fitted into the batteries, and float-free release arrangements for EPIRB at least once every two years. The deficiencies of the radio equipment which were found in the process of its maintenance shall be removed prior to a periodical survey.

**4.1.3.2.4.3** During the annual survey, the attending Surveyor shall check the documents with which the radio stations on board ships are to be provided:

effective Licence for the Radio Station issued by the Flag State;

Ship's Log Book in which the following items are to be recorded, as they occur, with the time of their occurrence:

all communications relating to distress, urgency and safety,

important incidents which occurred on board,

position of the ship at least once a day, etc;

amended publications of the International Telecommunication Union, and in particular:

List of Coast Stations and Special Service Stations (List IV);

List of Ship Stations and Maritime Mobile Service Identity Assignments Manual for Use by the Maritime Mobile and Maritime Mobile Satellite Services (List IV);

Manual for Use by the Marine Mobile and Maritime Mobile-Satellite Services;

documents confirming the registration (re-registration) of satellite radio beacons;

documents confirming the registration of radio equipment in INMARSAT Satellite System;

Certificates of the radio operators.

- **4.1.3.2.4.3.1** The ships flying the flag of the Russian Federation shall submit the documentation specified in the List of Documentation for Radio Service depending upon the Ownership (see Annex 22).
- **4.1.3.2.4.3.2** The radio equipment installed on board the ships engaged on a single voyage or passage beyond the specified area of navigation, shall be in compliance with the requirements of Section 8, Part II "Carrying out Clasification Surveys of Ships".
  - 4.1.3.2.5 Special survey.
- **4.1.3.2.5.1** The special survey of radio equipment shall be held in accordance with 4.1.3.2.1, 4.1.3.2.7 and 4.1.3.2.8. The scope of the special survey is specified in Table 2.3, Part I "Survey Regulations" of the Rules for the Equipment of Sea-Going Ships.
  - **4.1.3.2.6** Initial survey.

- **4.1.3.2.6.1** The initial survey of radio equipment shall be held in accordance with 4.1.3.2.1, 4.1.3.2.4 and 4.1.3.2.5.
- **4.1.3.2.6.2** During the initial survey, the attending Surveyor shall be shown the technical documentation in the scope necessary for checking the compliance with the requirements of the Rules for the Equipment of Sea-Going Ships, as well as the ship's documentation (documents issued by the competent supervisory bodies, Manufacturer's documents, etc). The list of necessary technical documentation is given in Section 3, Part I, "Survey Regulations" of the Rules for the Equipment of Sea-Going Ships.
- **4.1.3.2.6.3** The initial survey of radio equipment shall be held in the scope at least as specified in Table 2.3, Part I "Survey Regulations" of the Rules for the Equipment of Sea-Going Ships for special surveys.
- **4.1.3.2.6.4** If during the initial survey, any item of radio equipment is found to be not corresponding to the type approved by the Register, its design construction and technical parameters shall be subjected, in compliance with the requirements of the Rules for the Equipment of Sea-Going Ships, to thorough examination by the attending Surveyor.

In cases where, upon the result of the survey, the radio equipment on board is found to be not in compliance with the basic requirements of the Rules for the Equipment of Sea-Going Ships, the attending Surveyor shall request its replacement with the equipment of the approved type.

In cases where the attending Surveyor fails to find the radio equipment to be not in compliance with the requirements of the Rules for the Equipment of Sea-Going Ships, the radio equipment may be allowed for operation until the next periodical survey, and the Survey Report together with the appropriate technical documentation shall be submitted to RHO. Subsequently, after the confirmation has been obtained from RHO, this radio equipment may be allowed for service.

**4.1.3.2.7** Examination.

**4.1.3.2.7.1** The areas intended for installation of the radio equipment shall be surveyed so as to ensure that:

heating system fitted in the room for radio equipment to be installed at the navigating bridge (or radio room), generator room, room intended for command broadcast centre and accumulator battery room complies with the requirements of the Rules for the Equipment of Sea-Going Ships;

ventilation system in spaces intended for radio equipment, generator room, room intended for command broadcasting apparatus and accumulator battery room functions properly;

natural and artificial lighting in the room intended for radio equipment, generator room, room intended for command broadcast centre and accumulator battery room is sufficiently provided;

emergency lighting providing illumination for clock dials and face panels installed in the means of radio communication is available;

transit electrical cables and piping are not laid trough the spaces intended for installation of radio equipment;

plug sockets are sufficiently fitted in spaces intended for radio equipment and connected to the ship's mains:

availability of marine clock with a concentric type second-hand with its dial diameter not less than 125 mm near the radio equipment; compliance of the marine clock location in respect to the work place with the requirements of the Rules for the Equipment of Sea-Going Ships;

availability of the plate with the call sign of the ship, the ship's identification number and group identification numbers;

availability of technical and normative documents, as required by the Rules on Technical Documentation in the spaces intended for installation of radio equipment.

**4.1.3.2.7.2** During the survey the radio equipment is checked for:

compliance with the area of navigation, as specified by the Rules for the Equipment of Sea-Going Ships. While determining the area of navigation the availability of coastal radio stations and the correspondence of their equipment to the particular area for the purpose of receiving distress and safety messages and maintaining communications are taken into consideration;

compliance of the transmitters power output with the requirements of the Rules for the Equipment of Sea-Going Ships (the power of transmitters fitted on board oil tankers, oil/ ore carriers, oil bulk carriers, chemical carriers, gas carriers shall not exceed the values determined by the Rules for the Equipment of Sea-Going Ships);

availability of confirmation made by the competent body that the two-way VHF radiotelephone equipment installed on board the above mentioned ships is intrinsically safe type;

availability of the equipment not approved for operation on board or installed with no agreement with the Register;

compliance of sources of power (main, emergency, reserve, installed in accumulators or galvanic cells) supplying the radio equipment with the requirements of the Rules for the Equipment of Sea-Going Ships. In cases where any duplicating equipment is installed, as required by the Rules for the Equipment of Sea-Going Ships, the reserve source of power for the duplicating equipment shall be additionally inspected;

compliance of the number of the aerials and wiring scheme with the Rules for the Equipment of Sea-Going Ships;

compliance of the operational and protective earthing with the Rules for the Equipment of Sea-Going Ships;

serviceability of the instruments, measuring instruments, spare parts and availability of the technical documentation, if the serviceability of the radio equipment is provided by the qualified technical maintenance and it is repaired at sea.

**4.1.3.2.7.3** The survey of the spaces for the location and fitting of the radio communication facilities shall include the checking of:

compliance with the requirements of the Rules for the Equipment of Sea-Going Ships in relation to the inadmissible installation of the accumulators and rotary converters, as well as outfit and equipment not pertaining to radio communications, but capable of affecting the normal operation of the radio equipment and creating negative conditions for effective use of radio equipment in the spaces intended for radio equipment;

compliance of the location of the radio equipment in the dedicated spaces with the requirements of the Rules for the Equipment of Sea-Going Ships and approved technical documentation of the ship;

possibility of effecting all the operations required by the Rules for the Equipment of Sea-Going Ships from the radio operator's workstation;

possibility of monitoring the readings of the indicators and tuning dials from the radio operator's workstation; possibility of watching the exact time from the radio operator's workstation;

compliance with the requirements of the Rules for the Equipment of Sea-Going Ships as to the installation and fastening of the satellite emergency radio beacons;

availability of relevant marking near the location of each satellite emergency radio beacon, as required by the Rules for the Equipment of Sea-Going Ships;

**4.1.3.2.7.4** The survey of the location and fitting of the radio equipment in the generator room shall include the checking of:

correctness of the installation of the rotary converters in respect to the ship's center line; protection for the rotary details of the converters;

compliance of the radio equipment fastening with the requirements of the Rules for the Equipment of Sea-Going Ships.

**4.1.3.2.7.5** The survey of the location and fitting of the radio equipment in the accumulator battery room shall include the checking of:

compliance of the location of the accumulators supplying the reserve source of power for the radio equipment (both the main and the duplicating) with the requirements of the Rules for the Equipment of Sea-Going Ships;

compliance with the provision that no devices producing sparks and high temperature are installed in the accumulator battery room and no transit cables are laid;

compliance of the accumulator battery boxes arrangement and location of the accumulators in them with the requirements of the Rules for the Equipment of Sea-Going Ships;

availability of the maintenance and operational safety instruction for the accumulator.

**4.1.3.2.7.6** The survey of the location of the radio equipment for the life-saving appliances shall include the checking of:

possibility of rapid and convenient transfer of the two-way VHF radio telephone to any life boat or life raft;

possibility of rapid transfer of radar transponders to any survival craft;

relevant marking near the location of each piece of the radio equipment for life-saving appliances, as required by the Rules for the Equipment of Sea-Going Ships.

**4.1.3.2.7.7** The survey of the radio equipment fitted on board life boats shall provide that:

serviceability of the fixed two-way VHF radiotelephone apparatus is in no way impaired when the boat is flooded up to the upper benches, as required by the Rules for the Equipment of Sea-Going Ships;

reliability of the accumulators fastening in case of substantial heel or trim of the life boat;

availability of the spaces for the installation (fastening) of the radar responders.

**4.1.3.2.7.8** During the survey of the location of the equipment of public adress system, the compliance of the arrangements of the command microphone posts with the requirements of the Rules for the Equipment of Sea-Going Ships and the approved technical documentation of the ship shall be verified.

**4.1.3.2.8** Checking operability and testing in operation.

**4.1.3.2.8.1** The following parameters are checked when examining the operability of the VHF radio installation and when it is tested in operation:

serviceability on channels 6, 13, 16, 70 and one additional channel;

admissible deviation of frequency and transmitter output power;

correctness of entering the ship's identification number in the digital selective call (DSC) facility; proper functioning of controls, priority included;

quality of the sent signal by transmitting routine or testing signals to the coastal station, another ship, duplicating equipment, or special control equipment;

quality of the received signal by receiving routine or testing signals from the coastal station, another ship, duplicating equipment, or special control equipment;

self-monitoring system (where fitted);

serviceability when supplied from the main, emergency (where available), and reserve source of power;

audibility of DSC signals.

**4.1.3.2.8.2** When the operability of MF and MF/HF radio equipment is examined the following shall be checked:

serviceability when supplied from the main, emergency (where available), and reserve source of power;

tuning within all relevant frequency range;

admissible deviation of frequency within all relevant bands;

quality of work using communication in various modes with the coastal station (where transmission is permitted) and/or measuring the transmitter output power;

functioning of the transmitter by listening to the known coastal stations within all relevant frequences; priority of the control unit installed on the navigating bridge when initiating the distress alerts in cases where additional control units are installed outside of the navigating bridge;

functioning of the device for generating the radiotelephone alarm signals;

correctness of entering the self-indication data in the narrow band direct printing facility;

correctness of entering the ship's identification number in the DSC facility;

self-monitoring system (where fitted);

audibility of DSC signals;

ability of the watch keeping DSC facility to receive signals only from distress and safety frequencies; continuous watch of the DSC watch keeping facility when the MF or MF/HF transmitter is in operation.

**4.1.3.2.8.3** When the operability of the ship's INMARSAT earth station is examined and when it is tested in operation the following shall be checked:

serviceability by means of testing call;

function of initiating a distress alert under the test procedure (where provided);

serviceability when supplied from the main, emergency (where applicable) and reserve source of power;

self-monitiring system;

uninterrupted supply of data from the shipborne navigational and other equipment in the event of failure of the ship's main or emergency source of power.

**4.1.3.2.8.4** When the operability of the ship's NAVTEX receiver is examined and when it is tested in operation the following shall be checked:

proper functioning of controls; correctness of received messages;

self-monitoring program (where fitted).

**4.1.3.2.8.5** When the operability of the ship's enhanced group calling receiver (EGR) is examined and when it is tested in operation the following shall be checked:

serviceability and area for receiving messages and their copies;

self-monitoring program (where fitted).

**4.1.3.2.8.6** When the operability of the ship's HF direct printing radiotelegraphy receiver for reception of MSI is examined and when it is tested in operation the following shall be checked:

serviceability of receiving messages and their copies;

self-monitoring program (where fitted).

- **4.1.3.2.8.7** When the operability of the ship's COSPAS-SARSAT satellite emergency position-indicating radio beacon (EPIRB) is examined and when it is tested in operation the following shall be checked<sup>1</sup>:
- .1 location and fastening with the purpose to ascertain that the EPIRB can float free (for float-free EPIRBs);
  - .2 proper functioning of controls;
  - .3 self-monitoring program;
- .4 external marking of a highly visible yellow/ orange colour, coated with retro-reflecting material; availability of identification code programmed in the EPIRB (MMSI/ call sign), the expiration date of the battery, the date when the next shore-based maintenance is due and brief maintenance instruction clearly marked on the outer side of the buoy;
- .5 availability of the EPIRB Annual Survey Report in which the following shall be included: code of the country, identification number in ten digits, frequency stability, signal level in the frequency bands 406,025 and 121,5 MHz, message content. If it is not practicable to carry out the inspection within 12 months, this term may be prolonged to 18 months. Annual inspections shall be carried out by the bodies recognized by the Register to carry out these activities;
- .6 availability of the Report on the EPIRB Shore Technical Servicing by the servicing station recognized by the Register.

The EPIRBs shall undergo shore technical servicing with the intervals not exceeding 5 years;

- .7 devices for releasing and activating the float-free EPIRB.
- **4.1.3.2.8.8** When the operability of the ship's two-way VHF radiotelephone apparatus is examined and when it is tested in operation the following shall be checked:
- .1 the apparatus for which no replacement of the source of power is provided shall be subjected to the outside examination to confirm that:

the apparatus has not been used;

the service life of the primary battery has not expired<sup>2</sup>;

<sup>&</sup>lt;sup>1</sup>EPIRB shall be examined without signal emission.

<sup>&</sup>lt;sup>2</sup>If the remaining service life of the source of power is less than 12 months, the Surveyor shall request its replacement.

.2 the apparatus for which replacement of the source of power is provided during the service shall be subjected to checking of its:

proper functioning of controls;

serviceability on channel 16 and, at least, on one additional channel;

integrity of seals which means that the primary battery intended for using in case of distress has not been used;

expiry date of the primary battery.

**4.1.3.2.8.9** When the operability of the ship's radar transponder is examined and when it is tested in operation the following shall be checked:

absence of damage on the casing and controls;

functioning when being subjected to the radar illumination by the ship's radar working in the 9 GHz band;

expiry date of the source of power<sup>2</sup>.

**4.1.3.2.8.10** When the operability of the equipment for public address system is examined and when it is tested in operation the following shall be checked:

proper functioning of controls;

reliability of the remote switching on/ activating, forcibly inserted broadcasting systems, devices for commutation of broadcasting relay lines and other controls installed in each command microphone post;

proper operation of main broadcasting lines.

**4.1.3.2.8.11** When the operability of the ship's accumulator batteries for reserve supply of the radio equipment is examined and when they are tested in operation the following shall be checked:

whether the elements and terminals are damaged or corroded;

the batteries capacity;

voltage when loaded and unloaded; performance of charging devices.

**4.1.3.2.8.12** When the operability of the ship's cable system is examined the following shall be checked:

quality of cabling;

whether cabling is made by means of screened cabling;

availability of devices for protection against radio interference;

insulation resistance.

**4.1.3.2.8.13** When the operability of the ship's aerials and earthing is examined the following shall be checked:

absence of mechanical damage;

reliability of electrical connectors;

availability of guys at the down-lead wires;

wear level of aerial wire;

condition of protection of transmitting aerials inputs;

integrity and condition of insulators;

wear level of hoisting halyards;

condition of earthing devices;

availability of electrical connection of cable sheath and cases of equipment with ship's hull;

aerial insulation resistance;

earthing resistance.

**4.1.3.2.8.14** When the operability of the ship's rotary converters is examined and they are tested in operation the following shall be checked:

availability of any damage and corrosion of collector rings and motor terminals;

functioning of starting controls and distribution devices;

level of bearings heating;

degree of insulation resistance.

**4.1.3.3** Assessment of technical condition.

- **4.1.3.3.1** The technical condition of radio equipment shall be assessed upon the results of the survey, with the use of the previous Survey Reports and records on damage and deficiencies found during the operation, repairs and replacement of the equipment in accordance with the ship's documentation.
- **4.1.3.3.2** The radio equipment deficiency means the partial failure of its operability or operational mode, failure of tuning when the radio equipment works on the call or working frequencies which is associated with the change of frequency stability, sensitivity, etc, when power supply to the aerial is insufficient to provide the required range of transmitters, low resistance of insulation, etc.
- **4.1.3.3.3** If during a survey of the radio equipment any damage or deficiency endangering the ship's safety of navigation is found, the radio equipment and ship in general are recognized as not complying with the requirements of the Rules for the Equipment of Sea-Going Ships until such deficiencies are rectified. The ship's admission for navigation in a restricted area shall be subjected to the agreement with the Register.
- **4.1.3.3.4** In cases where the radio equipment installed on board in addition to the equipment required by the Rules for the Equipment of Sea-Going Ships (see 4.1.3.2.3) is found not be in compliance with these Rules, this shall not be considered as a ground to recognize the ship is not complying with the requirements, however, if the use of this radio equipment puts the safety of life or vessel's navigation at risk, this equipment it cannot be used for its intended purpose until its operative condition is restored.
  - 4.1.4 Survey of navigational equipment.
  - 4.1.4.1 General.
- **4.1.4.1.1** The general scope of the survey of navigational equipment comprising the list of navigational devices and appliances mandatory for the installation is given in Table 2.3, Part I "Survey Regulations" of the Rules for the Equipment of Sea-Going Ships.

After expiration of the five-year interval between the surveys, the latter shall be recurred.

Navigational equipment of passenger ships, oil tankers, gas carriers and chemical carriers shall be surveyed on an annual basis, in the scope of a special survey.

- **4.1.4.1.2** Electrical equipment, machinery, systems and piping connected in their construction with navigational equipment or included in its scheme shall be subjected to the surveys in compliance with the requirements of the relevant Sections of these Guidelines.
  - **4.1.4.2** Procedure and scope of survey.
- **4.1.4.2.1** In addition to the objects of technical supervision as specified in Table 2.3, Part I "Survey Regulations" of the Rules for the Equipment of Sea-Going Ships, on board the ship there shall be navigational equipment included in the list of mandatory navigational equipment, in accordance with the ship's gross tonnage, area of navigation and date of the ship's construction. This equipment shall be checked during each periodical survey:

hand lead,
navigational sextant,
marine chronometer,
stopwatch,
star globe or any equivalent instrument,
prismatic binoculars,
anemometer,
aneroid barometer,
inclinometer.

**4.1.4.2.2** The navigational equipment installed on board at the discretion of the shipowner, in addition to the navigational equipment required by the Rules for the Equipment of Sea-Going Ships, with the purpose of enhancing safety of life and navigation at sea, is subject to the complete supervision by the Register only in case where it fully duplicates the equipment required by the Rules for the Equipment of Sea-Going Ships, in respect to its use and commutation with other type of equipment, aerials and sources of power.

The failure of the optional equipment is reflected in the Report, but does not serve as a ground for not issuing the RS documents to the ship.

If the optional equipment, due to the above mentioned conditions, cannot be considered as reserve equipment, the scope of the technical supervision is limited by checking its serviceability. In this case the attending Surveyor shall satisfy himself that the operation or technical condition of the optional equipment cannot affect the routine work of or cause damage to the equipment required by the Rules for the Equipment of Sea-Going Ships, or other equipment, cannot endanger the human life, does not threaten safety of the cargo, nor can it cause a fire or explosion on board.

If the operation, usage, or location of the optional equipment interferes with the routine work and maintenance of the equipment required by the Rules for the Equipment of Sea-Going Ships, the attending Surveyor shall demand elimination of the causes for such interfering.

The navigational equipment with a deficiency dangerous for safety of the ship's navigation, shall be excluded from operation.

**4.1.4.2.3** The navigational devices and appliances shall be of the type approved by the Register and manufactured under its supervision, which is confirmed by the Register's issuing Certificates of Compliance, drawn up in accordance with the Rules for the Technical Supervision during Construction of Ships and Manufacture of Materials and Products for Ships.

The navigational devices and appliances manufactured without the Register supervision and not having the Type Approval Certificates, may be admitted for installation on board after considering the technical documentation (technical specifications, test protocols, certificates of the competent supervisory bodies, etc.), carrying out surveys and tests in accordance with the Rules for the Equipment of Sea-Going Ships. In individual cases, instead of testing, the Register may recognize that it is sufficient to consider only the test protocols which confirm the compliance of the products with the requirements of the Rules for the Equipment of Sea-Going Ships.

- **4.1.4.2.4** The objects of the navigational equipment are surveyed together with the devices and appliances associated with them (control panels, including remote control units, repeaters, alarm systems, sources of energy, remote transmission blocks, lighting arrangements, etc.).
  - **4.1.4.2.5** Annual survey.
- **4.1.4.2.5.1** The scope of each annual survey of the navigational equipment is set out in Table 2.3, Part I "Survey Regulations" of the Rules for the Equipment of Sea-Going Ships.
- **4.1.4.2.5.2** During the annual survey, the navigational equipment shall be tested in operation (P). During this test the fulfilment of the required periodical calibration of the measuring instruments (E) by the competent bodies is to be checked.
- **4.1.4.2.5.3** The magnetic compass, spare parts, instruments and materials, as well as the spaces for the navigational equipment shall be subjected to the external examination (C).
- **4.1.4.2.5.4** The operational testing of navigational equipment during an annual survey is effected by means of the necessary check of its activation, by the check of the availability of the readings and operation of controls, repeaters, devices for the readings remote transmission and alarm systems. In particular cases, at the Surveyor's discretion, the devices may be tested in operation when the ship is under way.
  - **4.1.4.2.6** Special survey.
- **4.1.4.2.6.1** The scope of special survey of the navigational equipment is set out in Table 2.3, Part I "Survey Regulations" of the Rules for the Equipment of Sea-Going Ships.
- **4.1.4.2.6.2** During the special survey of the ship, the navigational devices and appliances are subjected to a thorough examination (O), and operational tests (P). The magnetic compasses and measuring instruments shall be tested to confirm that the obligatory periodical examination is effected by the relevant competent bodies (E). The control depth sounding by echo sounders and measuring of insulation resistance, voltage and current intensity of supply units (M) shall be taken.

The spaces intended for the navigational equipment shall be subjected to an external examination (C). The spare parts, instruments and materials shall be checked whether they are complete and shall be examined externally.

**4.1.4.2.6.3** During the special survey, the navigational equipment shall be tested in operation when the ship is under way, together with the control checking of the technical and operational characteristics of the ship.

### **4.1.4.2.7** Initial survey.

**4.1.4.2.7.1** Prior to the initial survey, the technical documentation for the navigational equipment of the ship in the scope necessary to check the compliance with the requirements of the Rules for the Equipment of Sea-Going Ships, together with ship's documentation (documentation issued by the competent supervisory bodies, Manufacturer's documents, etc.) shall be submitted to the attending Surveyor.

The list of the necessary technical documentation for the ship's navigational equipment is specified in Section 3, Part I "Survey Regulations" of the Rules for the Equipment of Sea-Going Ships.

- **4.1.4.2.7.2** The initial survey of the navigational equipment shall be effected in the scope at least as set forth in Table 2.3, Part I "Survey Regulations" of the Rules for the Equipment of Sea-Going Ships for special surveys.
- **4.1.4.2.7.3** During the ship's initial survey, the compliance with the requirements of the Rules for the Equipment of Sea-Going Ships in relation to the obligatory composition, construction and arrangement of the navigational equipment in respect to the ship's gross tonnage, purpose and area of navigation shall be checked.
- **4.1.4.2.7.4** The compliance with the structural requirements of the Rules for the Equipment of Sea-Going Ships in relation to the accuracy of readings, sensitivity, vibration stability and other similar requirements, the testing of which is effected with the use of special tests and relevant devices, shall be verified by certificates and other documents confirming the compliance of the navigational equipment with the requirements of the Rules for the Equipment of Sea-Going Ships.

Where deemed necessary, in case of insufficient data, some specific testing for checking the regulated parameters may be requested by the attending Surveyor.

**4.1.4.2.7.5** If it is established during the initial survey, that some device constituting a part of the navigational equipment is not of the type approved by the Register, the attending Surveyor shall test this device thoroughly to determine whether its design and technical parameters comply with the requirements of the Rules for the Equipment of Sea-Going Ships.

If, upon the results of the survey, the navigational equipment is found not to be in compliance with the basic requirements of the Rules for the Equipment of Sea-Going Ships, the attending Surveyor shall demand its replacement with the equipment of the approved type.

In cases when the navigational equipment is not found to be out of compliance with the requirements of the Rules for the Equipment of Sea-Going Ships, this equipment may be allowed for operation until the next annual survey, provided that the Survey Report of this equipment and commensurate technical documentation are submitted to RHO. Subsequently, after the confirmation from RHO is obtained, the navigational equipment may be allowed for service.

- **4.1.4.2.8** Establishing operability and technical condition.
- **4.1.4.2.8.1** The operability of the navigational equipment is established by:

checking the operation of the devices by the attending Surveyor;

checking the documentation submitted by the Shipowner (reports, protocols and other documents issued by the by the specialized organizations and confirming good technical condition of the devices, followed by carrying out the appropriate inspections by Surveyors).

The periodical examination of the navigational equipment, its repairs, installation, replacement, adjustment, as well as periodical check of the measuring devices shall be carried out by the specialized organizations recognized by the Register with the issuance of the appropriate documents. Exception may be made for the companies effecting examination and calibration of measurement instruments and for the state metrology services and standardization bodies.

- **4.1.4.2.8.2** The assessment of the technical condition of the navigational equipment is carried out upon the results of the survey, with the use of the Reports of the previous surveys and operational records on damage and failures, repairs and replacements in accordance with the ship's documentation.
- **4.1.4.2.8.3** If during the survey of the navigational equipment its obligatory composition and arrangement is not found to be in compliance with the requirements of the Rules for the Equipment of Sea-Going Ships, or damage to or failures of this equipment present danger to the ship's safety of navigation, navigational equipment and ship in general are recognized as not complying with the requirements of the Rules for the Equipment of Sea-Going Ships until such deficiencies are rectified.

The ship's admission for navigation in a restricted area shall be subjected to the agreement with the Register.

- **4.1.4.2.8.4** In cases when the navigational equipment installed on board in addition to the equipment required by the Rules for the Equipment of Sea-Going Ships (see 4.1.4.2.2) is found to be not in compliance with the Rules, this fact shall not be considered as a ground to recognize the ship is not complying with the requirements, however, if the use of such equipment endangers the human life or ship's navigational safety, such equipment it cannot be used for its intended purpose until it is brought into operative condition.
  - **4.1.4.3** Register documents.
- **4.1.4.3.1** Fulfilment of the requirements set forth in the Rules for the Equipment of Sea-Going Ships shall be confirmed with documents specified in Section 6, Part I "General", the RS internal procedures. As regards to the ships covered by the requirements of SOLAS-74 as amended, the requirements to documents are given in 1.7, 2.1.1, the RS internal procedures for issuing the RS records.
- **4.1.4.3.2** The list of simplified documentation to be issued for the sea-going self-propelled vessels of less than 100 gross tonnage, sea-going non-propelled ships and inland navigation ships is specified in 6.8 of Part I "General Provisions".
- **4.1.5** When surveying ships in service, as indicated in 1.3, Part I "General", in respect of pollution prevention, the Register locations shall be guided by the provisions of the Guidelines on the Application of Provisions of International Convention MARPOL 73/78 and, where applicable, the Rules for the Prevention of Pollution from Ships Intended for Operation in Sea Areas and Inland Waterways of the Russian Federation.

### 4.1.6 Survey of cargo handling gear.

- 4.1.6.1 General.
- **4.1.6.1.1** The requirements of the International Convention "Occupational Safety and Health (Dock Work)", 1979 (ILO-152 Convention) as to ship's lifting appliances are met by complying with the Rules for the Cargo Handling Gear of Sea-Going Ships of the Register of Shipping where these requirements are contained.

The provisions of the present Chapter shall be applied during surveys of the ship's cargo gear specified in 1.3.1 of the Rules for the Cargo Handling Gear of Sea-Going Ships.

- **4.1.6.1.2** Ship derricks, cranes and hoists, upper structures of floating cranes and crane ships, ship's lifts and ship's elevating platforms<sup>1</sup> shall be subject to the following types of surveys and examinations:
- .1 initial survey prior to putting the cargo-handling gear manufactured without the Register supervision in operation;
- .2 thorough examination with a proof load when being manufactured, prior to putting into operation, as well as at five-year intervals since the date of construction or putting into operation;
- .3 annual thorough survey every year after initial or thorough surveys (five-year intervals between examinations), but not later than 12 months after the previous survey of cranes, hoists, ship's derricks winches, ship's lifts and ship's elevating platforms, upper structures of floating cranes and crane ships, as well as interchangeable components and loose gear, unless Flag State MA stipulates otherwise;
- .4 annual examination every year after initial or thorough surveys (five-year interval between surveys), but not later than 12 months after the previous survey of derricks and gear permanently attached to the derricks, masts and decks, including span chains;
- .5 occasional survey after renewal of the cargo-handling gear or putting onto another place, modification, overhaul, repairs after the accidents as set forth in 10.5 of the Rules for the Cargo Handling Gear of Sea-Going Ships.
- **4.1.6.1.3** Personnel handling arrangements used together with cargo handling gears designed for such a purpose shall be subject to thorough survey and proof load tests:

<sup>&</sup>lt;sup>1</sup>Hereinafter – cargo-handling gear.

at initial survey (during manufacture and/or putting into operation), at intervals not exceeding 6 months (from the date of manufacture or putting into operation), or

at more frequent intervals specified by a competent person.

- **4.1.6.1.4** Periodical surveys, examinations and tests of cargo handling gear installed on board the seagoing ships not engaged on international voyages may be integrated with special and annual surveys, having regard to their submission to the survey before the assigned date and to the extensions permitted as regulated by the current system for periodical survey.
- **4.1.6.1.5** At the intervals between surveys and examinations of cargo-handling gear by the attending RS Surveyor, the responsibility for the supervision of conformity with the RS documents and present Guidelines, for the maintenance of regulated limitations on permissible working load, jib radius of derricks and inclination of derrick booms, control of adjustment of derricks and preventer guy and also of the angle between the cargo runners when in union purchase, as well as the responsibility for keeping the cargo-handling gear in the state fit for safe use, shall rest with the ship's officers.
- **4.1.6.1.6** All the replaceable and loose gear and ropes shall be subjected to the thorough examination at least once every three months by the competent (responsible) person authorized by the Master of the ship. The competent person shall enter the results of the thorough examination in Part III of the Register of Ship's Lifting Appliances and Cargo Handling Gear (Form 5.1.1).

In addition, each time before using, all replaceable and loose gear and ropes shall be thoroughly examined by the competent person. In cases when any defects are found during such examination, a relevant entry shall be made in Part III of the Register of Ship's Lifting Appliances and Cargo Handling Gear. If any broken wire is found in the rope, the latter shall be examined at least once a month.

**4.1.6.1.7** During all types of surveys, tests and examinations of cargo handling appliances, Section 10 of the Rules for Cargo Handling Gear of Sea-Going Ships, the instructions set forth on the back page of relevant certificates and test programs are to be followed.

The cargo handling gear shall be tested, as a rule, at:

- .1 initial survey in the scope of the test program approved by the Register;
- .2 thorough examination along with the test with proof load of:

upper structures of cranes — in the scope of the test program approved by the Register;

cranes, cargo winches, hoists, ship's lifts and ship's elevating platforms — in the scope of 10.3 of the Rules for Cargo Handling Gear of Sea-Going Ships;

- .3 occasional survey in the scope of the test program approved by the Register.
- **4.1.6.1.8** Personnel handling arrangements shall be tested at initial and each subsequent thorough survey in a scope of applicable requirements 10.2 of the Rules for the Cargo-Handling Gear of Sea-Going Ships.
- **4.1.6.1.9** The attending RS Surveyors shall survey the cargo handling gear at the presence of the representatives of the Manufacturer or the Shipowner responsible for the cargo handling gear submission to the Register and its maintenance in working order.
- **4.1.6.1.10** The responsible representative either of the Manufacturer or the Shipowner shall manage the test.
- **4.1.6.1.11** If it is necessary to change the scope or the procedure of survey (test), the test Manager shall be advised about it by the attending Surveyor.
  - **4.1.6.2** Scope and procedure of surveys.
  - **4.1.6.2.1** Cargo handling gear shall be surveyed in sequence as follows:
  - .1 to check the technical documentation and RS documents for cargo handling gear;
- .2 to inspect visually metal structures, supports and fastenings when stowed for sea, understructures, hull reinforcements, counterbalances and cargoes intended for testing, machinery, rollers, drive gears, fastenings of machinery with understructures and driving ropes with drums, axle pins and bearing axis, electrical equipment and safety devices;
- .3 to test in operation the cargo handling gear in unloaded condition (indicators to control jib radii, ropes, hooks, mechanical brakes and winches, slewing bearings and gears, lifting beams, bearings, blocks, electric equipment and safety devices);

- .4 to test the cargo handling gear with a proof load at an overall survey according to 4.1.6.1.2.2 in the process of which the attending Surveyor supervises conditions of metal structures, understructures, supports and fastenings, ropes, hooks and counterbalances, electric drivers and brakes, limit-load switches and closing switches, machinery, brakes, blocks and bearings;
- .5 to examine cargo handling appliances on completion of their testing with the purpose to find out defects or residual deformations;
- .6 to enter the results of the tests and surveys into survey reports (Form 6.1.03) and/or reports (Forms 6.3.26, 6.3.30, 6.3.31);

.7 to issue the certificates (Forms 5.1.1 - 5.1.6).

In cases where the test of cargo handling gear is suspended, due to non-allowable defects, the Report on Survey of the Ship (Form 6.3.10) shall be drawn up along with descriptions of defects and their causes, as well as the particular requirements aimed at their rectifying and submitting for the survey and re-testing.

- **4.1.6.2.2** The model list of the structures, machinery, equipment and parts of cargo handling gear to be supervised by the Register is given in the Annex to the Rules for the Cargo Handling Gear of Sea-Going Ships.
  - **4.1.6.2.3** Prior to the beginning of the survey, the availability of the following is to be checked:

all RS documents needed for the items liable to be surveyed;

documents for interchangeable ropes and loose gear;

operation instructions for cargo handling gear;

ship's log book for records of examinations and results of repairs, effected by the crew during the ship's service, and to be considered by the attending Surveyor when assessing the technical conditions of the device, carrying out its operation test and determining the repairs scope and test types.

**4.1.6.2.4** Cargo handling gear, as a rule, shall be tested in the order of growing loads, namely: unloaded;

with a load less than a rated (working) load, where provided in test programs;

with a rated (working) load;

with a load limited (overload cut-outs and limit-load switcher);

with a proof load;

with loads in accordance with 6.4 of the Rules for the Cargo Handling Gear of Sea-Going Ships.

After the test of the crane with a proof load, overload cut-outs and limit load switchers shall be adjusted for operation with a load exceeding the rated one, in accordance with the crane operating instructions worked out by the Manufacturer.

The specific adjustment limits shall be entered in the survey report (Forms 6.1.03) and/or reports (Forms 6.3.26, 6.3.30, 6.3.31).

- **4.1.6.2.5** In the cases where the cargo handling gear intended for loading/unloading is simultaneously operated by two items of machinery with an equal or different lifting capacity, when the cargo is turned over, the testing shall follow an approved program and specific instructions or the project specifically designed for this lifting operation.
- **4.1.6.2.6** The cargo handling appliances intended for cargo operations under specific sea wave conditions (as provided in the project) shall be tested in accordance with the program approved by the Register and with the method adopted by the Manufacturer.
- **4.1.6.2.7** During the test of all types (specifically with a proof load and maximum inclination of the derrick boom), joint and structure elements, machinery and equipment shall be checked and, after each testing, visually examined so as to ensure that no defects and damage hazardous for testing or operation after completion of testing, are found out.
- **4.1.6.2.8** In cases of unsatisfactory technical condition of the cargo handling gear and evidence (records) pertinent to violation of the service regulations and failures, the structure element joints, machinery and equipment shall be requested to be opened for examining their critical parts, inaccessible for external examination.
- **4.1.6.2.9** In cases when during the test any non-allowable defect is found, the latter shall be rectified in the scope and by the method agreed on with the RS Surveyors, whereupon, the cargo handling gear shall be re-tested, in the scope specified by the attending RS Surveyor in each particular case.

- **4.1.6.2.10** During the assessment of the cargo handling gear technical condition, the norms pertinent to wears, as given in 10.6 of the Rules for the Cargo Handling Gear of Sea-Going ships, shall be followed and Section in MR on repair.
  - **4.1.6.3** The Register documents.
  - **4.1.6.3.1** Upon satisfactory results of the test and survey, the following Register documents are filled in: Register of Ship's Lifting Appliances and Cargo Handling Gear (Form 5.1.1);

Certificate of Test and Thorough Examination of Lifting Appliances (Form 5.1.2);

Certificate of Test and Thorough Examination of Derricks Used in Union Purchase (Form 5.1.3);

Certificate of Test and Thorough Examination

of Interchangeable Components and Loose Gear (Form 5.1.4);

Certificate of Test and Thorough Examination of Wire Rope (Form 5.1.5);

Certificate of Test and Thorough Examination of Lifts (Form 5.1.6).

In the survey report (Form 6.1.03) and/or reports (Forms 6.3.26, 6.3.30, 6.3.31) the following shall be contained: a type, brand, load capacity, quantity, location or number of cargo handling gears, scope of survey/tests performed as well as specific defects found during the testing of the cargo handling gear together with methods of their elimination, brief description of repair, modernization of the cargo handling gear and its parts.

- **4.1.6.3.2** In cases where the results after the test and survey are found to be unsatisfactory (see 4.1.6.2.9) and some cargo handling gear is found to be unsatisfactory and required to be overhauled (at the shipyard) and tested, all defects and requirements for their elimination shall be entered into Report on Survey of the Ship (Form 6.3.10).
- **4.1.6.3.3** The Register of Ship's Lifting Appliances and Cargo Handling Gear (Form 5.1.1) shall be distributed to the ship prior to putting the cargo handling gear into operation, when the cargo handling gear is modified (renewed) or put onto another ship and when one of the Register's sections is fully used.
- **4.1.6.3.4** One copy of the Register of Ship's Lifting Appliances and Cargo Handling Gear shall be distributed to the ship with several identical (in their type or mode) or different cargo handling appliances supervised by the Register and the data about these appliances are to be entered in its relevant parts.
- **4.1.6.3.5** Certificates (Forms 5.1.2, 5.1.3 and 5.1.6) shall be issued prior to putting the cargo handling gear into operation and at thorough (5-year period) surveys with a proof load. On completion of the five-year validity period, the certificate shall be renewed.
- **4.1.6.3.6** The Certificate of Test and Thorough Examination of Interchangeable Components (Form 5.1.4) shall be issued upon the results of the test effected by the attending Surveyor or on the basis of the Certificate duly signed by the competent person. The Certificate of Test and Thorough Examination of Wire Rope (Form 5.1.5) (if the Manufacturer's Certificate is available) shall be issued upon the results of the test effected by the attending Surveyor or on the basis of the Certificate duly signed by the competent person.

Their validity period is not limited. On renewal of interchangeable components, loose gear and wire rope, the certificates shall be renewed.

- **4.1.6.3.7** In cases when the cargo handling gear fails to be submitted for surveying (except floating cranes and crane ships), or major defects are detected during the test (see also 4.1.6.3.2) and the gear itself is not submitted for re-testing, the attending Surveyor shall make an entry in the Report on Survey of Ship's Lifting Appliances and Cargo Handling Gear (Form 6.3.26): "The cargo handling appliance is not submitted for the survey due to (the reason is to be specified), and an entry such as: Crane No. 2 has not been submitted to the Register (see Report No.... dated) or "Passenger lift No. 305 has not been submitted to the Register (see Report No.... dated) in the Register of Ship's Lifting Appliances and Cargo Handling Gear (Form 5.1.1) in the column "Recommendations" opposite to the relevant device.
- **4.1.6.3.8** The Surveyors shall fill in the Register of Ship's Lifting Appliances and Cargo Handling Gear and Certificates in accordance with the RS established Procedure.

### 4.2 DIRECTIONS ON ISSUING DOCUMENTS ON BEHALF OF FLAG STATE MA AND AUTHORIZED BY THEREOF

### 4.2.1 Issue of documents on behalf of the Flag State MA and authorized by thereof at Change of Flag without Change of Class.

**4.2.1.1** The provisions of 4.2.1 shall not restrict the authority of the RS Branch Office carrying out the ship's transfer of class to enhance the scope of the surveys for and on behalf of the Flag State MA either at their own discretion, or in accordance with the requirements or instructions of the corresponding Flag State MA. The Flag State MA shall give an order to the Register to issue, on its behalf, the certificates.

The Register shall take in action only those authorizations and instructions of the Flag State MA, sent from the MA official email addresses (with the official domain names) specified in the RS information system. The mentioned MA authorizations and instructions shall be subject to initial processing by RHO.

4.2.1.2 Obligations and Reporting.

**4.2.1.2.1** In addition to the stated in 5.2 and 5.3 of Part II "Carrying out Classification Surveys of Ships" the following shall be taken into account with regard to statutory surveys:

In cases where ACS (hereinafter referred to as "the losing Society") which classed the ship, does not have quality management system complying with the requirements of QSCS (confirmed by the appropriate document) and does not fulfil its obligations or provide adequate cooperation as required in RO Code (refer to IMO resolution MSC.349(92)), RS shall make an effort in good faith to fulfil its own obligations as deemed necessary and possible based on its professional judgement, the relevant requirements of RO Code, and the special instruction requested from the Flag State MA.

- 4.2.1.2.2 Regarding the certificates issued by Flag State MA, the following shall be taken into account:
- .1 for ships classed by ACS IACS members, the RS Branch Offices shall not issue any new certificates, or other documents enabling the ship to trade until all overdue surveys of class and all overdue conditions of class, previously issued against the ship as specified by the losing Society, have been completed and rectified by:
- RS, for ships less than 15 years of age (to be calculated from the date of delivery to the date of the request to change class is received by RS);

the losing Society, for ships 15 years of age and over;

- .2 for ships not classed by ACS IACS member, the principles contained in 4.2.1.2.2.1 above shall be followed. In case where the principles as noted above are unable to be implemented, RS shall seek to undertake the relevant obligations, or request special instruction from the Flag State MA.
  - **4.2.1.3** Plans and information.
- **4.2.1.3.1** At its own discretion or upon the specific requirements or instructions of the Flag State MA, RS shall request, from the shipowner, the appraisal or submission of plans, documents or alternative technical information to support the issuance of statutory certificates or other documents. However, having made an effort in good faith to obtain the information, if it proves not practicable to acquire certain plans as required, equivalent/alternative technical data must be provided prior to issuing any certificates.
- **4.2.1.3.2** In cases where the ship has been previously classed by RS or ACS subject to verification of compliance with QSCS, the submission of plans may be reconsidered subject to confirmation of no alteration/modification to the ship.
- **4.2.1.3.3** In addition to 4.2.1.3.2 as above, historical statutory documentation as listed in IACS Recommenda-tion No. 117 shall, within the limitations set by the Flag State MA concerned and by national legal constraints, be duly transferred between Societies upon request by RHO. In case of Alternative Design and Arrangements involved, the documentation of approval of Alternative Design and Arrangements pertaining to statutory aspects shall be requested to be submitted by the shipowner or provided by the losing Society. Transfer of additional material supporting the issuance of statutory certification shall be considered by the losing Society, upon request by RS.
  - **4.2.1.4** Scope of surveys.

- **4.2.1.4.1** For ships not covered by the requirements of 5.3, Part II "Carrying Out Classification Surveys of Ships", regardless of the type of the statuary survey and the term of its validity, the RS Branch Office shall carry out a full Renewal Survey prior to issuing any certificate to replace the one previously issued by the losing Society.
- **4.2.1.4.2** For ships classed by ACS-IACS members the RS Branch Office shall take into account the type of the previously issued statutory certificate and its remaining validity period to determine the scope of surveys to be held as noted below:
- .1 if the ship's existing certificate is expired or is valid through an extension at the date of change of class, the RS Branch Office shall carry out a full Renewal Survey prior to issuing any certificate;
- .2 If the ship has a permanent/interim certificate issued by the losing Society at the date of change of class, the following procedures are applicable:

prior to the issuance of a Passenger Ship Safety Certificate RS shall carry out a full Renewal Survey, prior to the issuance of a Cargo Ship Safety Radio Certificate RS shall carry out a full Renewal Survey for ships not covered by the Protocol of 1988 to SOLAS-74/78 (non-HSSC certification) or a full-scope Periodical Survey for ships covered by this Protocol (in cases of HSSC certification). In cases where the survey for issuing the Cargo Ship Safety Radio Certificate (Form 2.1.12) carried out due to change of class shall not be credited as periodical or renewal survey and the service supplier used by the losing Society shall be acceptable to RS, the survey may be limited to a general verification by the RS attending surveyor based on the last service report, i.e Report on Examination of Ship's Safety Radio Equipment (GMDSS) (carried out by Recognized Service Suppliers) (Form 6.3.22.2); for other statutory certificates RS shall carry out a mandatory Annual Survey;

- .3 if the ship has a conditional certificate or a full term certificate, which validity is limited by Statutory conditions existing with assigned due date, issued by the losing Society at the date of change of class, in addition to the scope of surveys to be held as indicated in 4.2.1.4.2.2 above, the deficiencies/defects with the details of any relevant requirements or provisos, noted on or attached with certificate shall be re-examined by RS;
- .4 during the mandatory Annual Surveys and/or the Periodical Survey for Safety Radio as noted above, if the Surveyor finds any major/detainable deficiencies/defects or a significant number of minor deficiencies/defects which indicate the condition of the ship or its equipment does not correspond substantially with the particulars of the certificate issued by the losing Society, then a full Renewal Survey shall be carried out prior to the issuance of any certificate (refer to 4.2.3).
- **4.2.1.4.3** In case of change of class due to the losing Society's authorization for statutory surveys being withdrawn or terminated by the Flag State MA, RS shall request via RHO special instruction from the Flag State MA for the scope of surveys to be held, which shall be not less than the requirements in 4.2.1.4.1 and 4.2.1.4.2 as noted above.
  - **4.2.1.5** Type and validity period of certificates.
- **4.2.1.5.1** For type and validity period of a new certificate to be issued, RS may refer to the provisions of 4.2.3, taking into account the validity period of the existing certificate, the existing deficiencies/defects (if any), and new deficiencies/defects if found. If a permanent certificate is issued by RS on completion of survey not credited as renewal survey, its validity period is not to exceed the validity period of the existing permanent certificate issued by the losing Society which it replaces.
- **4.2.1.5.2** In cases where the outstanding Statutory conditions previously issued against the vessel by the losing Society exist at the date of change of class and therefore a new certificate is to be issued by RS upon completion of relevant surveys as noted above, the validity of the certificate is subject to the outstanding Statutory Conditions related to existing deficiencies/defects being completed by the due date as specified by the losing Society The new certificate shall be issued with the appropriate expiry date according to the certificate previously issued by the losing Society.
- **4.2.1.6** The provisions of 4.2.1 do not apply in case of transfer of ISM and ISPS Code certification between Societies acting as R.O., and MLC 2006 certification.

### 4.2.2 Issuing the statutory documents when the ship changes the flag.

### 4.2.2.1 General.

- **4.2.2.1.1** The provisions of 4.2.2 shall apply if the new Flag State MA which registers the ship has entrusted carrying out the surveys and/ or issuing documents on its behalf to the RS and if the ship is covered by the relevant requirements of the International Conventions, agreements and IMO Codes. The survey procedures correspond to the applicable International Conventions and statutory Codes.
- **4.2.2.1.2** No documents or certificates of compliance of the items of technical supervision to be in compliance with the requirements of the international conventions are necessary unless otherwise is stipulated by the additional requirements of the Flag State MA.
- **4.2.2.1.3** These requirements do not specifically deal with audit/verification and/or certification procedures in accordance with the ISM Code, the ISPS Code and MLC 2006. Relevant procedures for ISM are more specifically laid down in item 14.4 of the ISM Code and PR No.9, for ISPS in section A.19.4.2 of the ISPS Code and PR No.24 and for MLC 2006 in Standard A5.1.3.7 of MLC 2006 and PR No.36.
- **4.2.2.1.4** For the Flag State MAs which joined the 1988 Protocol, the "Revised Survey Guidelines under the Harmonized System of Survey and Certification" (IMO resolution A.1120(30) as amended) shall be followed.

For the Flag State MAs which did not join the 1988 Protocol, the requirements of Rule I/14 of SOLAS-74/78 Convention shall be observed.

- **4.2.2.1.5** The survey procedure when the ship changes its owner, port of registry, and name is specified in 4.6, Part II "Survey Schedule and Scope" of the Rules.
- **4.2.2.1.6** If a ship was constructed originally without a known flag State, the Register shall verify the ship complies with national requirements of the gaining Flag State MA prior to issue of the relevant certification.
- **4.2.2.1.7** RS shall address the information related to Change of Flag as specified by the gaining Flag State MA in terms of authorization. In case of Alternative Design and Arrangements or exemptions are involved, the information or documentation for approval of the Alternative Design and Arrangements or an exemption pertaining to statutory aspects shall be addressed to the gaining Flag State MA for any further instructions.

## 4.2.2.2 Ship registration.

Provisions of this para apply only for state registration of ships under the Russian Federation state flag.

- **4.2.2.2.1** Ship registration in one of the Russian Federation Registers of Ships (hereinafter referred to as the Registers of Ships) in connection with change of shipowner and port of registry is performed by the state registration body (sea port captain) upon the shipowner's request.
- **4.2.2.2.2** Conditions and procedure for registration of ships under the RF flag (including the list of documents provided by the shipowner) are established by the corresponding provisions of the Merchant Shipping Code of the Russian Federation and the Rules of State Registration of ships, rights and transactions with them in sea ports and centralized registration of registered ships (hereinafter referred to as the Rules of Registration) and approved by Order of the Ministry of Transport of the Russian Federation No. 191 of 19 May, 2017.

The ship is subject to state registration in one of the registers of ships after identification procedure and survey of ship if the ship complies with the stated data. Identification procedure (confirmation of compliance of the item to be surveyed with the item in the application) and survey of the ship as described below in accordance with the Rules for Registration applies only to the first state registration of a ship, namely:

newly built ship;

ship purchased outside the Russian Federation or chartered at the foreign proprietor and other authorized bareboat charterer till the date of taking decision on state registration in one of the registers of ships by the state registration body.

Identification and survey of the ship are not required if the port of registry is changed with preservation of the RF flag and in case of change of shipowner and ship name without change of the RF flag. In such

cases the procedure of identification and survey of the ship is not applied and the Conclusive Statement on the results of identification and survey of the ship (Form 6.3.82pφ) is not provided.

.1 The owner of the ship or the bareboat-chatterer of the ship (hereinafter referred to as the shipowner) shall apply to the Register in writing to carry out identification and survey of the ship and shall enclose the Application and the Data on the ship (Form 430.1.14) which shall, inter alia, include the following:

estimation of technical condition of the ship by the shipowner (statement confirming that there are no unfulfilled requirements of the previous Flag State MA and/or classification society, or the list of existing non-conformities with specification of dates and methods of their elimination);

information on checks of the ship by the Russian and foreign port state control authorities for the last three years, including the following for each check: date of check, port and country of check, total number of remarks during the check, number of remarks which caused detention of the ship, country and port of issue of prohibition to enter the port (if any), grounds for prohibition to enter the port;

shipowner's estimation of the possibility to fulfill the requirements of the RF laws and international treaties of the Russian Federation in the area of navigation safety, safety of human life at sea, marine environment pollution prevention, transport safety, maritime labour.

The shipowner shall provide for the Register access to the ship and documentation for the ship, including design documentation for the ship, ship's equipment, systems and machinery required for checking technical characteristics.

.2 at the stage of identification and survey the Register shall estimate:

possibility of further survey of the ship in the scope established by RS normative documents in case of the state registration under the RF flag and possibility of classification if the ship has no valid RS class.

Within not more than 10 working days from the date of receiving the shipowner's statement, the Register shall:

- .2.1 analyze the presented Application and Data on the ship to determine the following: unfulfilled requirements of the previous Flag State MA; unfulfilled requirements of previous classification society; possibility to eliminate the above mentioned requirements during the next survey by the Register in prescribed scope in case of ship registration under the RF flag;
- .2.2 analyze the enclosed ship documents to obtain the information on checks of the ship by the Russian and foreign port state control authorities for the last three years, including the following for each check: date of check, port and country of check, total number of remarks during the check, number of remarks which caused detention of the ship, country and port of issue of prohibition to enter the port (if any), grounds for prohibition to enter the port;
- .2.3 analyze the available design documentation for the ship, ship's equipment, systems and machinery to check compliance with applicable requirements of the RS rules, the RF laws and international treaties of RF in the area of navigation safety, safety of human life at sea, marine environment pollution prevention, maritime labour;
- **.2.4** general survey of the ship during which the surveyor shall estimate the ship's technical condition on the basis of ship's certificates, design documentation and marking, and confirm compliance with the submitted data:

ship's name,

IMO number,

port (place), country of previous state registration and date of its cancellation (if any),

ship number (for fishing fleet ships, if any),

call sign (if any and on the basis of information on generated call sign presented to the applicant by the radio-frequency service or permission for ship radio station),

allowed GMDSS sea areas, type and purpose of the ship, navigation area,

main dimensions of the ship (overall length, overall breadth, depth),

tonnage (gross and net), deadweight, maximum loaded and ballast draft, freeboard, maximum air draft, date and place of construction, shipyard's name,

material of hull and superstructures,

number, type, power and place of construction of main engines, maximum sailing speed in loaded and ballasted state, type and quantity of propellers (if applicable),

type of fuel,

quantity and capacity of each cargo hold (tank), capacity of fuel tanks, fresh water tanks,

quantity of passenger places,

quantity and capacity of each collective life-saving appliance,

maximum number of crew members,

type of steering gear,

quantity and capacity of drain facilities,

quantity and capacity of fire-fighting facilities,

other items and documents required for identification and estimation of technical condition.

Based on the foregoing, the Register shall issue the Conclusive Statement on the results of identification and survey of ship (as per the sample, according to Appendix No. 3 to the Rules for Registration - Form 6.3.82pφ or initial survey report in case of a sport sailing vessel (as per the sample, according to Appendix No. 4 to the Rules of Registration (Form 6.3.82pφ), where the Register shall specify the information on ship identification, confirm compliance of the ship with the stated data, assess technical condition of the ship confirming that the necessary requirements are fulfilled or that there is a list of non-conformities which can be eliminated during survey which will be carried out by the Register during the next survey after ship registration under the RF flag.

If non-conformities are not found:

an entry shall be made in para 35 of the Conclusive Statement (Form 6.3.82pφ: "The ship complies with the stated data, during survey of the ship by the Register after state registration under the RF flag with the positive results of survey fulfilled in the scope established by RS rules it will be possible to confirm fulfillment of the applicable requirements of the RF laws, including applicable requirements of the Register Rules and international treaties of the Russian Federation in the area of navigation safety, safety of human life at sea, marine environment pollution prevention, maritime labour";

for the ship which has no valid RS class the following record shall be made in para 36 of the Conclusive Statement (Form 6.3.82pφ: "In case of state registration under the RF flag, on the basis of the official request of the company (indicate the name of the applicant) and satisfactory results of survey fulfilled in the scope prescribed by the RS rules, the ship can be classified by the Russian Maritime Register of Shipping with issue of the certificates confirming compliance of the ship with the applicable requirements of RS Rules, the RF laws and international treaties of the Russian Federation in the area of navigation safety, safety of human life at sea, marine environment pollution prevention, maritime labour";

for the ship which has valid RS class the following entry shall be made in para 36 of the Conclusive Statement (Form 6.3.82PΦ: "In case of state registration under the RF flag, on the basis of the official request of the company (indicate the name of the applicant) and satisfactory results of survey fulfilled by the Register in connection with the change of a flag for the RF flag the class of ship can be maintained and the certificates confirming compliance of the ship with applicable requirements of the RS rules, the RF laws and international treaties of the Russian Federation in the area of navigation safety, safety of human life at sea, marine environment pollution prevention, maritime labour can be issued".

If non-conformities are detected, they shall be listed in para 35 of the Conclusive Statement (Form 6.3.82pφ) with specification of the possibility to eliminate them during the next survey which will be carried out by the Register after registration of the ship under the RF flag (list of nonconformities shall be specified in para 35 of the Conclusive Statement (Form 6.3.82pφ) or in the Appendix to the Conclusive Statement).

During completion of the above mentioned identification procedure and survey of the ship, the applicable provisions related to making photos of the surveyed items and documents prescribed in 3.1.2.5, Part I "General Provisions" shall be carried out.

Documents issued by the Register by results of identification and survey of the ship shall be submitted to the state registration body by the shipowner.

For the ships with dual or double class, the ACS shall not be informed;

- .3 if the Register receives the request from the shipowner with reference to the requirement of the state registration body to survey the ship in order to prepare the conclusion on the lost quality by the ship as a result of reconstruction or any other changes or the conclusion on compliance of the ship with the data earlier entered in the register of ships, the Register shall fulfill the specified survey and provide the shipowner with the required conclusion to be submitted to the state registration body. The Conclusion shall be issued as the Report on survey of the ship (Form 6.3.10).
- **4.2.2.3** On agreement with the port Master, instead of the mentioned documents giving the right for the ship, the Shipowner may produce to the RS Branch Office either interim or permanent Certificate of the Right of Ownership and Certificate of the Right of Sailing under the Russian Federation Flag.
- **4.2.2.2.4** If this period coincides with the period of the ship's transfer of class, then, provisions of Section 5, Part II "Carrying out Classification Surveys" shall serve as a guidance.
  - **4.2.2.3** The documents necessary for the Register for the Flag change.
- **4.2.2.3.1** When the Shipowner applies to the Register with a request to survey the ship and issue the documents in connection with the change of the Flag, the following documents or their copies attested at the notary office listed in 4.2.2.3.1.1 to 4.2.2.3.1.3 shall be submitted to the Register.
- **4.2.2.3.1.1** If any flag is changed for the RF flag, the shipowner shall submit the documents (whichever applicable) in accordance with the Rules of Registration. For the list of documents, see the form of the Application (according to Appendix No. 1 to the Rules for Registration).
  - **4.2.2.3.1.2** If the RS Flag is changed for the flag of another State:

interim or permanent Certificate of the Ship's Registration in the State Register of Ships of the new state;

interim or permanent Ship's Radio Station Licence issued by an authorized organization of the new Flag State;

Minimum Safe Manning Document issued by the Maritime Administration of the new Flag State; Classification Certificate;

Certificates for compliance with the requirements of the International Conventions issued on behalf of the Russian Federation.

Note. For effecting surveys in the scope of the powers delegated to the Register and for issuing Certificates of compliance with the requirements of the International Conventions in connection with the flag change of the ships which formerly had the class of the Register, it is not necessary to obtain of the respective orders from the Flag State MA with which the Register has previously made Agreements on Delegating Authority for Carrying out Surveys for Compliance with the Requirements of the International Conventions. The only exception is the Malta Administration which gives a separate order for every ship which changes its Flag for the Flag of Malta. The scope of the authority delegated by the Maritime Administrations for carrying out surveys for compliance with the statutory requirements is shown on the Survey Division Web-site, Section "Additional Guidelines of Flag State MA".

**4.2.2.3.1.3** If any Flag is changed for any flag other than the Flag of the Russian Federation:

interim or permanent Certificate of the Ship's Registration in the State Register of Ships of the new state:

interim or permanent Ship's Radio Station Licence issued by the Flag State MA or an authorized organization of the new Flag State;

Minimum Safe Manning Document issued by the new Flag State MA;

Classification Certificate;

Certificates for compliance with the requirements of the International Conventions issued on behalf of the former Flag State MA.

Note. See Note to 4.2.2.3.1.2.

- **4.2.2.4** The scope of surveys during the Flag change.
- **4.2.2.4.1** Survey of the ship shall be carried out in the scope of the authorities delegated to the Register considering the additional instructions of the Flag State MA reading as follows:

all the ship's documents issued on behalf of the former Flag State MA shall be checked in respect of their terms of validity and availability of the outstanding requirements;

a survey shall be held to ascertain that the ship's structure, its hull, machinery, systems and valves have not suffered any alterations since the last survey, and there are no obstacles for retaining the previous validity term of the ship's documents, and additional requirements (if there are any) of the new Flag State MA are complied with;

to verify that the identification numbers of the ship's radio equipment (emergency position indicating radio beacon, INMARSAT ship earth station, DSC equipment, direct printing radiotelegraphy receiver) have been replaced and re-registered, and the corresponding entries are made in the passports of radio equipment;

to verify that the new names of the ship and of the port of registry are applied on its hull and its lifesaving appliances;

in accordance with the requirements of some Flag State MA, it is necessary to apply the official number and the value of net register tonnage on the main beam.

In addition to the surveys specified below it is necessary to provide that the name of the new Flag State of the ship, the name of the port of registry and the ship's name were shown (as applicable) in the documents for compliance with the requirements of the International Conventions (Intact Stability Booklet, Shipboard Oil Pollution Emergency Plan, etc.) and on the life boats, life rafts, life buoys, etc.

- **4.2.2.4.2** If the time of the Flag change does not coincide with the terms of the prescribed renewal surveys or surveys for confirmation of new certificates which will be issued by the gaining Flag State MA or on its behalf, the scope of the surveys for issuance of the majority of the certificates for compliance with the requirements of the International Conventions is to be the following:
  - .1 for the Cargo Ship Safety Construction Certificate annual survey;
  - .2 for the Cargo Ship Safety Radio Certificate renewal/ periodical survey;
  - .3 for the Cargo Ship Safety Equipment Certificate annual survey.

Note. If the vessel covered by the Harmonized System of Surveys and Certification (HSSC) changes its flag for the flag of the State not covered by this system, the following provisions shall apply:

if the Flag change takes place within 2 years after the initial/last renewal survey, the annual survey shall be carried out; if the Flag change takes place 2 years after the initial/last renewal survey the renewal survey shall be carried out;

- .4 for the Passenger Ship Safety Certificate the scope of the survey according to 4.2.2.4.2.1 to 4.2.2.4.2.3:
  - .5 for the International Oil Pollution Prevention Certificate annual survey;
- .6 for the International Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk:
  - .7 for the International Sewage Pollution Prevention Certificate renewal survey;
  - .8 for the International Air Pollution Prevention Certificate annual survey;
  - .9 for the International Load Line Certificate annual survey;
- .10 for the International Certificates of Fitness for the Carriage of Liquefied Gases in Bulk/Dangerous Chemicals in Bulk annual survey;
- **4.2.2.4.3** If the Register did not have a request/order from the previous Flag State MA for the ship's survey and/or issuance of Certificates (the statutory Certificates were issued by another Classification Society), or if the losing Flag State Administration was not a party to the relevant Convention, then the corresponding initial/renewal surveys for issuing the Cargo Ship Safety Radio Certificate, Cargo Ship Safety Equipment Certificate, Passenger Ship Safety Certificate, International Load Line Certificate, International Oil Pollution Prevention Certificate, International Pollution Prevention Certificate, International Sewage Pollution Prevention Certificate, International Air Pollution Prevention Certificate, International Certificates of Fitness for the Carriage of Liquefied Gases in Bulk/Dangerous Chemicals in Bulk.
  - **4.2.2.5** Documents issued by the Register upon the results of surveys for the Flag change.
- **4.2.2.5.1** If any flag is changed for the RF flag after state registration of the ship, RS shall issue the documents specified in 4.2.2.5.2
- **4.2.2.5.2** After the ship is registered to fly a flag and the Register receives the documents listed in 4.2.2.3 by results of survey, it is necessary:

.1 to issue the following documents:

new Certificates, other directions by the Flag State MA;

new Tonnage Certificate (according to the form of the Russian Maritime Register of Shipping or the new Flag State MA, as stipulated by the Flag State MA);

Ship's Carving and Marking Note if required by the Flag State MA;

the Ship survey statement (Form 6.1.03) with a check-list drawn up in STORM system (Form 6.1.01), or check-lists of the relevant form (in well-grounded cases), as well as the Report on Survey of the ship (Form 6.3.10) in connection with Flag change. Report (Form 6.3.10) might not be required provided the necessary information related to the Flag change is specified in the check-list (check-lists);

Survey Reports for compliance with the requirements of the International Conventions, other directions by the Flag State MA and check-lists including the Report on Survey of the Ship (Form 6.3.10) in connection with the Flag change. The Report is issued in English and Russian when the ship changes its Flag for the Flag of the Russian Federation, and only in English when the ship changes its Flag for the Flags of other countries. On the request of the Shipowner the Report can also be issued in Russian.

Note. Introducing corrections, alterations and additional entries into the certificates, which were available on board ship before the Flag change, is prohibited. The documents shall be drawn up again. Alterations may be entered into other documents, and these alterations shall be attested by the signature and stamp of the inspector, with the date indication (refer to 4.6 of part II "SURVEY SCHEDULE AND SCOPE" of the Rules).

If upon the examination of the submitted documents and upon the results of the held survey it was found out that the previous validity terms of the ship's documents can be retained, then they may stay the same irrespective of the validity terms of the interim documents issued by the new Flag State MA.

If it is not possible to re-issue/ endorse the valid Tonnage Certificate, it can be extended for a term of not more than 3 months (from the moment of the Flag change) by introducing an appropriate note (for ships flying the Russian Federation Flag \_ in English and Russian languages; for ships flying other Flags \_ in English, and on the request of the Shipowner, in Russian) in the "Remarks" column of the Tonnage Certificate. For issuing a new Tonnage Certificate, the Shipowner/Operator is to be informed about the necessity of advance sending of an application form, for drawing up documents in connection with the ship's tonnage calculation, to RHO..

.2 verify availability (where applicable) and, where approval shall be required, re-approve on behalf of the new Flag State MA operational documentation (if an appropriate authorization for the documentation approval is available):

Loading manual;

Stability information;

Tonnage calculation;

Information on the trim of the damaged ship and ship's stability;

Grain Loading Stability Information (for issuance of the Certificate of Fitness of the Ship for the Carriage of Grain in Bulk);

Information on Non-Grain Bulk Cargo Loading Stability and Strength (for issue of the Certificate of Fitness of the Ship for the Carriage of Non-Grain Bulk Cargo - see reg. VI/7.2 SOLAS-74 as amended);

Cargo Securing Manual;

Shipboard Oil Pollution Emergency Plan;

Garbage Management Plan (only for the ships flying the Flag of the Russian Federation);

Other documentation, Guidelines, booklets and schemes in compliance with International Conventions, Codes (see for example, Annex 12 to IMO resolutions A.1119(30), FAL.2/Circ.131 - as applicable).

If the ship has not been submitted to RS for a long period or in other well-grounded cases during verification of operational technical documentation RS Surveyor is to check the absence of information on major conversion, modernization, repair, replacement of machinery, arrangements, equipment and outfit which may result in a significant change to ship's characteristics, that all necessary documentation is available on board, availability on documentation of stamps of approval done by ACS - IACS member or Flag State MA (where necessary), as well as for compliance with which documents the documentation has been developed and approved (compliance with the applicable requirements of SOLAS-74 as amended,

International Code on Intact Stability, International Code for Safe Carriage of Grain in Bulk, etc.), availability of translation into the crew's working language, etc.

While verifying documentation on stability and damaged stability by the RS surveyor, the following documentation may be required for submitting: plan of subdivision showing all watertight structures and openings with indication of types of closing appliances; calculations of sectional areas of cross-flooding fittings and of uprighting time; ballast and bilge system plan; lines drawing (if available); general arrangement plan; Diagram of Watertight Compartments; a copy of a valid Load Line Certificate. For ships operating or those that will be operated in winter or winter seasonal zones established by LL-66/88 / the RS Load Line Rules for Sea-Going Ships, it shall be verified the availability of stability calculation regarding icing conditions.

With no comments, the documentation shall be subject to the RS approval (if approval is required on behalf of the Flag State MA or compliant to the RS rules) and stamped as appropriate. In case of any doubt, unavailability of necessary documentation or data in documentation, the documentation shall be subject to approval by the RS Surveyor carrying out the survey for a time period agreed with the RHO. In this case the RS Surveyor shall issue a relevant requirement on development of new documentation, updating of the current one and necessity of its approval by RS as well as translation to the crew's working language and submission of the approved documentation, translation (where necessary) on board for a period of documentation temporary approval.

Verification of other documents by the RS Surveyor the availability of which is stipulated by conventions on board, but its approval is not specified by the Administration,

- **4.2.2.6** Submittal of documents upon completion of ship's survey.
- **4.2.2.6.1** Upon completion of ship's survey in connection with change of flag the electronic copies of the documents issued shall be sent to the RS Branch Offices for in-service supervision in accordance with the RS procedure (refer also to para 4.6 of Part II "Survey Schedule and Scope" of the Rules).
- 4.2.3 Procedure for issue and cancellation of documents issued by or on behalf of the Flag State MA in case of identified deficiencies/defects.
  - **4.2.3.1** General.
- **4.2.3.1.1** Provisions of 4.2.3 determine the duties of the surveying personnel in case of identified deficiencies/defects or when the results of their rectification are surveyed on board ships holding the Register class.
- **4.2.3.1.2** Provisions of 4.2.3 are applicable to the process of carrying out the work connected with ship's surveys authorized by Flag State MA.
  - **4.2.3.2** Terms, definitions, abbreviations.
  - **4.2.3.2.1** The following terms, definitions and abbreviations are used in 4.2.3:

Interim Certificate — is a certificate issued by the attending Surveyor upon satisfactory completion of a survey in order to permit the ship to trade while the permanent Certificate is prepared. An Interim Certificate is usually valid for 5 months from the date of its issue.

Detainable deficiencies/defects (Major deficiencies/defects) are identified deficiencies/defects which are considered to endanger the people onboard, the stability or integrity of the ship or is likely to cause pollution. The list of such deficiencies/defects in respect of various statutory certificates is given in 4.2.3.4.

This list is not comprehensive, but it contains examples of major deficiencies/defects for each International Convention or Code.

Condition of Class is requirements to the effect that specific measures, repairs, surveys are to be carried out within a specific time limit in order to retain Classification. The terms "Recommendation" or "Class Recommendation" are synonyms of the Condition of Class.

Statutory Condition are requirements to the effect that specific measures, repairs, surveys are to be carried out within a specific time limit in order to retain statutory certification.

Minor deficiencies/defects are deficiencies/defects which do not prevent the ship from proceeding to sea as it is not considered to pose a danger to the ship, the environment or persons on board within the timeframe given for its rectification.

Certificate or Permanent/Full Term Certificate is a certificate issued upon satisfactory completion of an initial or renewal survey. A Permanent/Full Term Certificate is valid until the next periodical/renewal survey is due. A Permanent/Full Term Certificate may also be issued or re-issued when all deficiencies/defects which led to the issuance of a conditional certificate are corrected.

Conditional Certificate or a conditionally issued certificate is a certificate with the appropriate expiry dates that is issued by the attending surveyor when deficiencies/defects exist which cannot be corrected in the port of survey. A conditional certificate is valid only for a period long enough to permit the ship to proceed to the port where the correction will be made.

Note. Some Flag State MAs, for example, those of Liberia and of the Marshall Islands, require that these Certificates shall be called and annoted "Short Term Certificates".

- **4.2.3.3** Procedure for issue and cancellation of Certificates in case of identified deficiencies/defects.
- **4.2.3.3.1** During surveys of ships in compliance with the requirements of International Conventions including IMO resolution A.1120(30) the RS Surveyors shall be guided by the following:
  - .1 if at the time of any survey detainable deficiencies/defects are identified which:

show that the condition of the ship or its equipment is unsatisfactory, the representative of the Flag State MA, nominated Surveyor or recognized organization shall be guided by the requirements of SOLAS-74/88/04, regulation 1/6 (c), MARPOL 90/04, Annex 1, regulation 3.4, MARPOL 90/04, Annex II, regulation 8.2.5, MARPOL 90/04, Annex IV, regulation 4.5, MARPOL 90/04, Annex VI, regulation 6(1), the IBC-83/90/04, regulation 1.5.1.3, the IGC-83/90/04, regulation 1.5.1.3 and the BCH-85/90/00, regulation 1.6.1.3, as well as LL-66/88/04. These instruments require that corrective actions be taken immediately;

cannot be permanently repaired or permanently rectified in the port of survey; or

cannot be temporarily compensated by measures upon completion of which the detainable deficiencies change to minor findings (in case they are agreed between the Register and Flag State MAs and the relevant agreement is signed or a special decision is made), in case the corrective actions have not been undertaken, no certificates should be issued or endorsed, the appropriate certificate shall be cancellation and the Flag State MA notified immediately. If the ship is in the port of another Party, the appropriate authorities of the port State shall also be notified immediately.

Note. Despite that LL-66/88 does not contain any special requirements but when the survey for issuing an International Load Line Certificate or an International Load Line Exemption Certificate demonstrates unsatisfactory condition of the ship or its equipment, the representative of the Flag State MA, nominated surveyor or a recognized organization nevertheless shall be guided by the provisions of 4.2.3.3.1.1;

.2 if detainable deficiencies/defects are identified at the time of Initial or Renewal Survey, and they cannot be permanently rectified in the port of survey, a Conditional Certificate/Short Term Certificate shall be issued to allow the ship to proceed to the port where the identified deficiencies/defects can be completely eliminated, and the outstanding deficiencies/defects shall be noted on or attached to the "CONDITIONAL"/"SHORT TERM" Certificate. Outstanding deficiencies/defects, with the details of any relevant requirements or provisos and the assigned due date for the time needed to rectify, shall be noted on or attached to the Conditional or short term Certificate.

After rectification of the identified deficiencies/defects the Conditional Certificate/Short Term Certificate shall be withdrawn and a Permanent/Full Term Certificate issued instead;

The Flag State MA shall be contacted as per agreement between RS and the Flag MA, when the possibility of issuing the Conditional Certificate shall be agreed;

.3 if detainable deficiencies/defects are identified at the time of the annual, intermediate, periodical, Port State Control or other non-periodical survey, and they cannot be permanently rectified in the port of survey:

the existing Permanent/Full Term Certificate shall be withdrawn. This Certificate shall not be endorsed:

a Conditional/Short Term Certificate marked with a word "CONDITIONAL"/"SHORT TERM" printed under its name shall be issued for the ship, and the deficiencies/defects which were not rectified shall be indicated in the Conditional Certificate or in the Annex thereof; or in the Conditional Certificate

under the entry "CONDITIONAL" ("SHORT TERM"), a reference to the Report on Survey in which all detainable deficiencies are indicated shall be introduced (see Report № ...of...).

After rectification of the identified deficiencies/defects the issued Conditional/Short Term Certificate shall be withdrawn and a Permanent/Full Term Certificate restored.

The Flag State MA shall be contacted as per agreement between RS and the Flag State MA, when the possibility of issuing the Conditional Certificate shall be agreed.

For ships flying the flag of the Russian Federation, the imposed statutory requirements shall be agreed upon with RHO;

.4 in case of minor deficiencies/defects not rectified at time of the survey:

if the deficiency/defect also relates to class, a Condition of Class may be issued with the details of any relevant requirements or provisos and an assigned due date for the time needed to rectify (refer to Annex 17);

if the deficiency/defect is limited only to statutory certificates, a statutory condition with assigned due date may be issued, with the details of any relevant requirements or provisions and an assigned due date for the time needed to rectify, with or without a conditional or short term certificate issued.

The above actions shall be agreed or reported to the Flag State MA to the extent required by the agreement with the Register and the Flag State MA.

Statutory requirement for ships flying the RF Flag shall be agreed with RHO.

If deemed necessary by the attending surveyor, a combination of deficiencies/defects of a less serious nature may also result in the withdrawal of the Permanent/Full Term Statutory certificate and its replacement with a Conditional or Short Term Certificate subject to the concurrence by the Flag State MA to the extent required by the agreement between the Register and the Flag State MA;

Note. This includes minor deficiencies/defects related to structural, mechanical and/or electrical requirements of the classification society recognized by the Flag State MA (e.g., reg. 3-1 SOLAS II-1).

The final decision on the severity of the deficiency/defect shall be left to the professional judgment of the RS Surveyor.

**4.2.3.3.2** In the RS established practice annual and intermediate surveys shall be carried out within 3 months before or after the specified dates.

In case minor deficiencies/defects are found at the beginning of this period, a Conditional Certificate may be issued as prescribed in 4.2.3.3.1.3.

- **4.2.3.3.3** All actions associated with statutory requirements (in case of minor deficiencies/defects), cancellation or issue of international short term/conditional certificates shall be agreed by the Register Branch Offices with RHO. The agreement of matters on issue of short term/conditional certificates with the Flag State MA shall be within competence of RHO.
- **4.2.3.3.4** The statutory certificate with validity period restricted by the period of fulfilment of the requirement is considered invalid if the requirements imposed by the Register related to this certificate are not met within the specified terms.
- **4.2.3.3.5** The RS Branch Office for in-service supervision shall notify the shipowner on the upcoming expiry of the statutory requirement due date/short-term (conditional) certificate:

three (3) months prior to the specified date;

immediately after imposing the requirement (issue of such a certificate) or amending the requirement due date upon the Flag State MA decision and updating of the ship's data on the RS internal website if the requirement due date (validity period of such a certificate) is less than three (3) months.

In the notification, the particular attention of the shipowner shall be given to the fact that in case of failure to meet the statutory requirement, the Register will have to inform the Flag State MA on such a matter.

**4.2.3.3.6** If on the appointed date the ship is not under survey, or the request for survey on the closure of the requirements of the shipowner is not received, then within one working day the RS Branch Office for in-service supervision shall notify RHO about the overdue claim, which shall inform the Flag State MA within the period established by agreement between the Flag State MA and RS, or within three (3) working days, whichever comes first.

**4.2.3.3.7** In case RHO has taken a decision (where applicable as agreed upon with the Flag State MA) on the new due date of the previous imposed statutory requirement, the RS Branch Office for in-service supervision shall:

update the survey status in compliance with the RHO decision;

notify the shipowner on the new due date of the requirement irrespective of the available shipowner's request for a survey on the closure of the requirement.

If on the new appointed due date the ship is not under RS survey, the RS Branch Office for in-service supervision shall be guided by the provisions of 4.2.3.3.6 of the Guidelines.

- **4.2.3.3.8** Upon receipt from the ISM Code expert of the information on deficiencies related to technical status of the ship, the RS Division for In-Service Supervision, in compliance with provisions of 4.2.3.3.1 4.2.3.3.6, shall review the detected nonconformities/defects/failures and make a decision as regard the necessity of the ship survey, as well as the actions to be taken on the relevant issued documents (imposing a requirement, limitation/suspension of the validity period, etc). Shipowner shall be notified of the decision taken, When imposing the requirements, one shall be guided by the provisions of Annex 17 to the Guidelines.
  - **4.2.3.4** List of detainable deficiencies.
- **4.2.3.4.1** To assist the surveyors of the RS Branch Offices, the following tentative List of detainable deficiencies/defects grouped under relevant International Conventions and Codes is set forth below:
  - .1 SOLAS-74/78:
- **.1.1** failure of proper operation of propulsion and other essential machinery, as well as electrical installations;
- .1.2 excess amount of oily-water mixture in bilges, insulation of piping, including exhaust pipes in engine room contaminated by oil, and improper operation of bilge pumping arrangements;
  - .1.3 failure of proper operation of emergency generator, lighting, batteries and switches;
  - .1.4 failure of proper operation of the main and auxiliary steering gear;
- .1.5 absence, insufficient capacity or serious deterioration of personal life-saving appliances, survival craft and launching arrangements;
- .1.6 absence, non-compliance or substantial deterioration to the extent that it cannot comply with its intended use of fire detection system, fire alarms, fire-fighting equipment, fixed fire-fighting installations, ventilation valves, fire dampers and quick-closing devices;
- .1.7 absence, substantial deterioration or failure of proper operation of the cargo deck area fire protection on tankers;
  - .1.8 absence, non-compliance or serious deterioration of lights, shapes or sound signals;
- .1.9 absence or failure of the proper operation of the radio equipment for distress and safety communication:
- .1.10 absence or failure of the proper operation of navigation equipment, taking into account the relevant provisions regulation V/12(o) of SOLAS-74/78, as amended;
- .1.11 absence of corrected navigational charts and/ or other relevant nautical publications necessary for the intended voyage, taking into account that electronic chart display and information system complying with the requirements of IMO resolution A.817(19) may be used as a substitute for the corrected navigational charts;
  - .1.12 absence of non-sparkling exhaust ventilation for cargo pump rooms;
  - .1.13 failure of the proper operation of inert gas system;
  - .2 IBC-83/90/00:
  - .2.1 missing or damaged high pressure safety devices;
  - .2.2 electrical installation not intrinsically safe or not corresponding to the Code requirements;
  - .2.3 sources of ignition in hazardous location;
  - .2.4 insufficient heat protection for sensitive products;
  - .3 IGC-83/90/00:
  - .3.1 missing closing devices for accommodation or service spaces;
  - .3.2 bulkhead not gas tight;

- .3.3 defective airlocks;
- .3.4 missing or defective quick-closing valves;
- .3.5 missing or defective safety valves;
- .3.6 electrical equipment not intrinsically safe or not correspond to the Code requirements;
- .3.7 ventilation in cargo area not operable;
- .3.8 pressure alarms for cargo tanks not operable;
- .3.9 gas detection plant and/or toxic gas detection plant defective;
- .4 LL-66/88:
- .4.1 significant areas of damage or corrosion or pitting of plating and associated stiffening in decks and hull affecting fitness to proceed or strength to take local loads, unless properly authorized temporary repairs for a voyage to a port for permanent repairs for a voyage to a port for permanent repairs have been carried;
  - .4.2 the absence of sufficient stability information in an approved form;
- **.4.3** absence, sufficient deterioration or defective closing devices, hatch closing arrangements and watertight/weathertight doors;
  - .4.4 overload;
  - .4.5 absence of, or impossibility to read draught marks and/or Load Line marks;
  - .5 Annex I to MARPOL 73/78:
- **.5.1** absence, serious deterioration or failure of proper operation of oily-water filtering equipment, oil discharge monitoring and control system or 15 ppm alarm arrangements;
  - .5.2 remaining capacity of slop and or sludge tank insufficient for the intended voyage;
  - .5.3 Oil record book not available;
  - .5.4 unauthorized discharge bypass fitted;
  - .5.5 failure to meet the requirements of reg. 20.4 or alternative requirements specified in reg. 20.7;
  - .6 Annex II to MARPOL 73/78:
  - .6.1 absence of approved (P & A Manual);
  - .6.2 no cargo record book available;
  - .6.3 unauthorized discharge bypass fitted;
  - .7 Annex IV to MARPOL 73/78:
- .7.1 a sewage treatment plant is not of an approved type in accordance with the standards and test methods developed by the Organization;
  - .7.2 systems fitted to comminute and disinfect sewage are not of an approved type;
  - .7.3 holding tank capacity not approved by the Flag State MA insufficient for the intended voyage;
- .7.4 a pipeline for the discharge of sewage to a reception facility, provided with a stabdard shore connection is not fitted;
  - **.8** Annex VI to MARPOL 73/78/97:
- **.8.1** a marine diesel engine with a power output of more than 130 kW, which is installed on board a ship constructed on or after 1 January 2000 or a marine diesel engine having undergone a major conversion on or after 1 January 2000, which doesn't comply with the  $NO_x$  Technical Code or that does not comply with the relevant  $NO_x$  emission limit;
- **.8.2** a marine diesel engine with a power output of more than 5000 kW and a per cylinder displacement at or above 90 litres, which is installed onboard a ship constructed on or after 1 January 1990 but prior to 1 January 2000, and an Approved Method for that engine has been certified by an the Flag State MA and was commercially available, for which an Approved Method is not installed after the first renewal survey specified in Annex VI MARPOL 73/78;
- **.8.3** Depending on the method used for demonstrating  $SO_x$  compliance, sulphur content of any fuel oil being used onboard exceeds 4,5 % m/m prior to 1 January 2012, 3,5 % m/m on and after 1 January 2012 and 0,5 % m/m on or after 1 January 2020, taking into account provisions of Annex VI MARPOL 73/78, reg.18.2:
- **.8.4** Non-compliance with the relevant requirements while operating within an Emission Control Area for SO<sub>x</sub>;

**.8.5** An incinerator installed onboard the ship on or after 1 January 2000 does not comply with requirements contained in Appendix VI to the Annex, or the standard specifications for shipboard incinerators developed by IMO.

## 4.2.4 Procedure for Reporting on deficiencies possibly affecting the implementation of the ISM Code on board during surveys.

### 4.2.4.1 General.

The procedure determines the duties of the Surveyors to ensure that the Organisation responsible for the SMS audit of the ship is notified when deficiencies that may affect the proper implementation of the safety management system (SMS) are identified and describes the procedure of making out the Report (Form 6.3.65). The section is based on and complies with IACS Procedural Requirements No. 17.

- **4.2.4.2** Scope and application.
- **4.2.4.2.1** The procedure describes reporting on deficiencies that may affect the proper implementation of the safety management system and the subsequent action to be taken.
  - 4.2.4.2.2 The present item specifies such failures and instructs the Surveyors as to their identification.
- **4.2.4.2.3** TThe procedure shall apply to all cases of the RS involvement in classing the ship and/or being responsible for the SMS audit of the ship.

## 4.2.4.3 Definitions.

Administration — the government of the State whose flag the ship is entitled to fly.

Document of Compliance (DOC) means a document issued to a Company that complies with the requirements of the ISM Code.

Surveyor means Surveyor to the Register who carries out classification or statutory surveys irrelevant to the ISM Code.

Company means the Shipowner or any other organization or person such as the manager or the bare-boat charterer who has assumed the responsibility for the operation of the ship from the Shipowner and who, on assuming such responsibility, has agreed to take over all duties and responsibilities imposed by the International Safety Management Code.

International Safety Management (ISM) Code means the International Management Code for the Safe Operation of Ships and for Pollution Prevention adopted by IMO resolution A.741(18).

Deficiency means a defect in, or a failure in the operation of the ship, a part of the ship's structure or its machinery, equipment, fittings, or a failure in the documentation, possibly arising from the lack of implementation of the ISM Code on board.

Clear evidence means quantitative and qualitative information, records and statements or established facts pertaining to the existence and implementation of Safety Management System element.

RS Branch Office for in-service supervision means the RS Branch Office which supervises the ship and keeps the Ship's File.

Regional Branch Office means the RS Branch Office which carried out the survey of the ship (which nominated Surveyor to carry out the class or statutory survey irrelevant to the SMS Code).

Safety Management Certificate (SMC) means a document issued to a ship which signifies that the company and its shipboard management operate in accordance with the approved safety management system (SMS).

Safety Management System (SMS) means a structured and documented system enabling Company personnel to implement effectively the company's safety and environmental protection policy.

Report (Form 6.3.65) means the documentation completed by the Surveyor in accordance with this item.

## **4.2.4.4** Procedure of reporting.

**4.2.4.4.1** When deficiencies possibly affecting the implementation of the ISM Code on board are identified by the Surveyor during any survey (including: a periodical survey (annual/intermediate/special) classification survey or occasional classification survey, statutory surveys, additional surveys relevant to Port State Control, Flag State Inspections or any other occasion, a Report (Form 6.3.65) shall be completed by the Surveyor.

- **4.2.4.4.2** When deficiencies possibly affecting the implementation of the ISM Code on board are not identified the Surveyor shall make a corresponding entry into the List of Surveyor's Status (Form 6.3.51-1).
- **4.2.4.4.3** Upon the results of the inspection, the Surveyor shall introduce one of the following entries into List of Survey's Status (Form 6.3.51-1):
- .1 "[Date] Недостатки СУБ согласно ПТ № 17 MAKO выявлены/Deficiencies under IACS PR 17 are reported";
- .2 "[Date] Недостатки СУБ согласно ПТ № 17 MAKO не выявлены/Deficiencies under IACS PR 17 are not reported".
  - **4.2.4.4.4** The following shall be reported by the Surveyor:
- .1 deficiencies relating to technical conditions which may lead to the limitation, suspension or withdrawal of a Class or Statutory Certificate;
  - .2 deficiencies relating to deviation from requirements for documentation and reporting;
  - .3 deficiencies caused by deviation from operational requirements;
  - .4 other deficiencies which may seriously affect the safety of ship, personnel or the environment.
- **4.2.4.4.5** The Surveyor shall inform the master or the Company representative that the information on the identified deficiencies may be forwarded to the Organization responsible for the SMS audit of the ship as specified in the continuous synopsis record.

## 4.2.4.5 Reporting.

- **4.2.4.5.1** A copy of the Report (Form 6.3.65) shall be forwarded to the RS Branch Offices performed the ship's survey, to RHO by means of "Thesis" System within 3 working days after completion of a survey for the following review and desired effect.
- **4.2.4.5.2** When the RHO responsible department judges that the reported deficiencies are affecting the implementation of the ISM Code on board, the report shall be sent to either:

the Classification Society acting as a Recognized Organisation that is responsible for the SMS audit of the ship as specified in the continuous synopsis record.

The contact details can be found on the IACS website: www.iacs.org.uk;

the Flag State MA, if the SMS was audited by the Flag State MA or a Classification Society other than specified above, the rest remaining as it stands.

- 4.2.4.6 Following up if no deficiencies are identified.
- **4.2.4.6.1** Forms 6.3.51-1 with the indication that the reported deficiencies are not related to possible SMS failures compiled by the Surveyor according to 4.2.4.4.3, after having been submitted to the RS Branch Office for in-service supervision, are to be filed.
  - 4.2.4.7 Guidance on drawing up Report (Form 6.3.65).
- **4.2.4.7.1** When compiling the Report the Surveyor shall be guided by his experience and the mentioned examples of deficiencies (refer to Table 4.2.4.7.1).
- **4.2.4.8** When the applicable statutory certificates are cancelled (as well as those at the shipowner's will) and a valid SMC is available on the ship, the RS Branch Office carried out the survey, shall inform RHO. A copy of the Survey Status of the ship issued on the survey results and containing the information on expiry of the statutory certificates shall be sent to RHO as a part of operational information of the survey conducted (for making a decision on SMC cancellation in compliance with 4.3.4, 4.3.5 Part I "General").

## 4.3 GRANTING THE SHIP WITH AN EXEMPTION (WAIVER) FROM COMPLIANCE WITH THE REQUIREMENTS OF INTERNATIONAL CONVENTIONS

### 4.3.1 General.

**4.3.1.1** Review to confirm the possibility of granting the ship with an exemption (waiver) from compliance with the requirements of international conventions and specifying the conditions thereof is entirely an exclusive right of the Flag State MA.

Table 4.2.4.7.1

Category of deficiency	Examples
Technical deficiencies	Combination of deficiencies, that together indicates that the maintenance system is not efficiently implemented. Poor condition of hull, main deck, closing appliances, railings, ladders.  Defective/ missing fire fighting and life saving appliances, oil pollution prevention equipment.  Leaks and oil in Engine Room (E/R) spaces, pump-rooms etc.  Deficiencies relating to technical conditions which may lead to the limitation, suspension or withdrawal of a Class or Statutory Certificate
Operational deficiencies	Accidents and hazardous occurrences not reported to the company.  Crew not able to satisfactorily conduct practical demonstrations of shipboard operations, such as starting the fire pump, emergency generator, lifeboat engine, etc.  Crew not able to communicate effectively in the execution of their duties.  Inability of crew to perform satisfactorily mandatory drills such as fire drills, LSA drills, pollution prevention drills, etc.
Documentation deficiencies	Expired classification or statutory certificates not endorsed as required.  Overdue surveys, overdue audits or overdue conditions of class.  Ship's copy of Document of Compliance (DOC) not valid or not relevant to ship type.  Original Safety Management Certificate (SMC) has incorrect data or endorsements missing.  Emergency response plans and relevant SOPEP manual not available (contact points ashore shall be current and corresponding with Company name / address on DOC and SMC).  Entries for relevant drills etc. in Log Book not completed in accordance with mandatory requirements.  Incorrect or missing entries in the Oil Record Book. Fire Plan not up to date.
Other deficiencies	Ship's complement not complying with the Minimum Safe Manning Certificate.  Master, officers and ratings not certified as required by the STCW Convention.  Serious deficiencies in respect to housekeeping and maintenance of galley, crew accommodation, and provisions stores.  Port State or Flag State detentions if no evidence available, that the organisation responsible for the SMS audit of the ship as specified in the Continuous Synopsis Record has been notified.

#### Notes:

1. Deficiencies shall not be reported, when:

they are considered normal wear and tear for the ship type and age;

deficiencies previously identified by the Company or the crew, the parties concerned are informed appropriately, there is evidence that deficiencies are being dealt with adequately by the Company including the personnel working on board.

2. The following shall not be reported if:

Port State or Flag State detentions if evidence available, that the organisation responsible for the SMS audit of the ship has been notified, and additional survey for the ship's compliance with the ISM Code requirements shall be provided;

on board the auditor of the organization responsible for the SMS audit of the ship, is present in order to perform the audit and he was notified of the deficiencies identified by the surveyor. These data shall be entered in the Section "Additional Information for Shipowner and Surveyor" to the conventional part of the List of Survey's Status.

**4.3.1.2** If necessary, the Register shall provide the Flag State MA with the Conclusion on the conditions for granting an exemption (waiver) to a ship from compliance with the requirements of the International conventions.

The procedure for the Register in this case shall be defined as follows:

for ships flying the flag of the Russian Federation in 4.3.2 and 4.3.3;

for ships flying a flag other than the flag of the Russian Federation, in 4.3.4..

**4.3.1.3** RS shall carry out survey of a ship in order to issue an exemption (waiver) only in case the relevant decision of the Flag State MA is available.

# 4.3.2 Initial granting the ship with an exemption (waiver) from compliance with the requirements of international conventions to a ship flying the RF flag.

**4.3.2.1** The procedure for initial granting the ship with an exemption (waiver) from compliance with the requirements of international conventions to a ship flying the RF flag from compliance with the requirements of international conventions is stated in RF Government Regulation No. 1012 of December 24, 2008 "On granting the ship flying the RF flag with an exemption (discharge) from compliance with the requirements of the International Convention on Load Lines 1966, Convention on the International Regulations for Preventing Collisions at Sea, 1972, International Convention for the Prevention of Pollution from Ships 1973, as amended by Protocol of 1978 thereto) and the International Convention for the Safety of Life at Sea,1974.

- **4.3.2.2** To consider the possibility of initial granting the ship with an exemption (waiver) a shipowner or its legal representative (hereinafter referred to as the applicant) shall send a relevant request to the Federal Marine and River Transport Agency. A copy of the request shall be sent by the applicant to RHO, and regarding the fishing vessels also to the Russian Federation Fishery Agency in compliance with the applicable provisions of the "Administration regulations of the Federal Marine and River Transport Agency on granting the ship with an exemption (waiver) from compliance with the requirements of the International Convention on Load Lines 1966, Convention on the International Regulations for Preventing Collisions at Sea, 1972, International Convention for the Prevention of Pollution from Ships 1973, as amended by Protocol of 1978 thereto) and the International Convention for the Safety of Life at Sea, 1974" approved by order of July 17, 2012 of the Ministry of Transport of the Russian Federation No. 239.
- **4.3.2.3** Within three working days from receipt of the copy of the request, RHO shall send a request to the RS Branch Office for in-service supervision regarding the conditions of initial granting an exemption (waiver) to ship. Where necessary, such a request may be sent also to the relevant RHO Departments.
- **4.3.2.4** Within three working days from receipt of the request, the RS Branch Office shall send to the RHO a statement on the possibility of initial granting an exemption (waiver) indicating the conditions thereon.
- **4.3.2.5** Upon receipt of the statement from the RS Branch Office, the RHO shall prepare the RS opinion on the possibility of initial granting an exemption (waiver) and send it to the Federal Marine and River Transport Agency.
- **4.3.2.6** As a rule, an interval between the receipt of the copy of the request and sending the RS opinion to the Federal Marine and River Transport Agency shall not exceed 15 working days.
- **4.3.2.7** Having received a decision of the Federal Marine and River Transport Agency, RHO within three working days from its receipt shall inform the RS Branch Office for in-service supervision.
- **4.3.2.8** Within one working day from receipt of the decision of the Federal Marine and River Transport Agency from RHO, the RS Branch Office for in-service supervision shall inform the applicant thereon.
- **4.3.2.9** In case of a satisfactory decision, the RS Branch Office for in-service supervision shall inform the applicant on the necessity to submit the ship for the occasional survey to document the decision of the Federal Marine and River Transport Agency.
- **4.3.2.10** If, on receipt of the decision of the Federal Marine and River Transport Agency, the ship is subject to any survey, the copies of the decision of the Federal Marine and River Transport Agency and an authorization for its conducting shall be sent to the RS Branch Office performing survey of the ship.
- **4.3.2.11** The decision of the Federal Agency of Marine and River Transport shall be placed by the RS Branch Office for in-service supervision in the relevant section of the ship's file.
- 4.3.3 The subsequent granting of a ship with exemption (waiver) from compliance with the requirements of international conventions for a ship flying the RF flag.
- **4.3.3.1** If the exemption (waiver) has been issued to the ship earlier, but afterwards the ship has changed the RF flag to another flag, as well as in case of change of conditions on upon which the exemption (waiver) has been granted, the procedure for initial granting an exemption (waiver) shall be followed in compliance with para 4.3.2.
- **4.3.3.2** If the exemption (waiver) has been issued to the ship earlier and during the operation of the ship its flag (RF) has not changed, neither have the conditions upon which the exemption (waiver) has been granted, the decision on renewal of the exemption (waiver) may be taken by the Register.
- **4.3.3.3** To consider the possibility of renewal of the certificate for exemption (waiver) issued earlier to the ship flying the RF flag, the shipowner shall send the relevant request only to RHO's address.
- **4.3.3.4** Within three working days from receipt of the request RHO sends a request to the RS Branch Office for in-service supervision or to the RS Branch Office carrying out the survey regarding compliance with the exemption (waiver) granted to the ship flying the RF flag earlier. If necessary, such request may be also send to the specialized RHO divisions.
- **4.3.3.5** Within three working days from receipt of the request the RS Branch Office shall send to RHO a confirmation on compliance with the conditions upon which the exemption (waiver) has been granted

earlier. The statement of the RS Branch Office shall contain information with regard to paras 4.3.3.1 and 4.3.3.2.

- **4.3.3.6** Within three working days from receipt of the RS Branch Office's statement RHO shall send to the RS Branch Office the decision of the Register on possibility of renewal of the certificate for exemption (waiver).
- **4.3.3.7** Within one working day from receipt of RHO's decision the RS Branch Office shall inform the shipowner thereof.
- **4.3.3.8** The time period from the moment of receipt of the shipowner's request to the moment of sending RHO's decision on possibility of renewal of the certificate for exemption (waiver) shall not exceed 15 working days.
- **4.3.3.9** If at the moment of receipt of RHO's decision the ship is being submitted to any survey, the RHO's decision and authorization for execution thereof shall be send in copy to the Branch Office carrying out the survey of the ship.
- **4.3.3.10** RHO's decision shall be placed by the RS Branch Office for in-service supervision in the relevant section of the Ship's File.
- 4.3.4 Granting the ship with an exemption (waiver) from compliance with the requirements of international conventions to a ship flying the flag other than the RF flag.
- **4.3.4.1** To consider the possibility of granting an exemption (discharging) to ship a shipowner or its legal representative (hereinafter referred to as the applicant) shall send a relevant request to the Flag State MA. A copy of such a request may be sent to the Register.
- **4.3.4.2** When the Flag State MA requests the RS opinion regarding the conditions of granting an exemption (waiver), the review of such a request and sending the RS opinion regarding the conditions of granting an exemption (waiver) are the RHO responsibility.
- **4.3.4.3** When preparing the RS opinion to the Flag State MA, special attention shall be paid to the availability of requirements a particular Flag State MA related to the procedure of sending the classification society opinion on the conditions of granting an exemption (waiver).
- **4.3.4.4** As a rule, an interval between the receipt of a request from the Flag State MA till sending the RS opinion shall not exceed 5 working days.
- **4.3.3.5** When the decision of the Flag State MA is sent to RS only, RHO within one working day shall notify the applicant thereof indicating the necessity to submit the ship for the occasional survey in order to issue the decision of the Flag State MA.
- **4.3.4.6** When the decision of the Flag State MA is sent to the applicant and the copy thereof is sent to RS, RHO within three working days shall notify the applicant on the necessity to submit the ship for the occasional survey in order to issue the decision of the Flag State MA.
- **4.3.4.7** When the decision of the Flag State MA is sent to the applicant only, the latter shall notify the Register of such a decision and send a request for the occasional survey. Upon receipt of this information, RHO within one working day shall send the relevant authorization to the RS Branch Office in which activity area the occasional survey is scheduled to be conducted.
- **4.3.4.8** When the decision of the Flag State MA is sent by the applicant to the RS Branch Office in which activity area the occasional survey is scheduled to be performed, the RS Branch Office within one working day shall notify RHO on receipt of the Flag State MA decision. Upon receipt of this information, RHO within one working day shall send the relevant authorization to the above RS Branch Office.
- **4.3.4.9** If, on receipt of the decision of the Flag State MA, the ship is subject to any survey, the decision of the Flag State MA and the copy of an authorization for its conducting shall be sent to the RS Branch Office responsible for ship's survey.
- **4.3.4.10** The decision of the Flag State MA shall be placed by the RS Branch Office for in-service supervision in the relevant section of the ship's file.
  - 4.3.5 Issuing a decision of the Flag State MA related to granting an exemption (waiver).
- **4.3.4.1** The decision of the Flag State MA in respect of granting an exemption (waiver) to the ship from the compliance with the requirements of international conventions shall be properly documented by

the RS provided the satisfactory results of the occasional survey in order to check the compliance with the conditions of granting an exemption (discharging) to the ship as per the decision of the Flag State MA.

**4.3.5.2** When the decision of the Flag State MA concerns granting the ship with an exemption (discharge) from compliance with the requirements of the regulations of SOLAS-74, the Register, depending on the regulation granting an exemption, shall issue an Exemption Certificate to one of the following Certificates issued by RS:

Cargo Ship Safety Certificate; Cargo Ship Safety Equipment Certificate;

Cargo Ship Safety Radio Certificate;

Cargo Ship Safety Radio Certificate;

Cargo Ship Safety Construction Certificate;

Passenger Ship Safety Certificate.

The Certificate with a List/Supplement (where necessary) shall be reissued with introducing the information related to issuing of the Exemption Certificate.

**4.3.5.3** When the decision of the Flag State MA refers to granting the ship with an exemption (discharge) from compliance with the requirements of COLREGs, the Register shall issue an Exemption Certificate to the Cargo Ship Safety Equipment Certificate.

The Certificate with a List/Supplement shall be reissued with introducing the information related the issuing of the Exemption Certificate.

**4.3.5.4** When the decision of the Flag State MA refers to granting to ship an exemption from compliance with the requirements of the International Convention on Load Lines, 1966, the Register shall issue an Exemption Certificate to the Load Line Certificate with Supplement (where necessary).

In this case, the Load Line Certificate is not issued, when is not otherwise stated by the Flag State MA.

**4.3.4.5** When the decision of the Flag State MA refers to granting the ship with an exemption (discharge) from compliance with the requirements of any Code, the Register shall issue an Exemption certificate to the relevant Certificate.

The Certificate with a List shall be reissued with introducing the information related the issuing of the Exemption Certificate.

- **4.3.5.6** Term of validity of the Exemption Certificate shall not exceed the term of validity of the Certificate which it is issued to.
- **4.3.5.7** The Exemption Certificate shall contain a list of conditions for its issuing specified in the decision of the Flag State MA.
- **4.3.5.8** When the Flag State MA decision is related to granting the ship with an exemption (discharge) from compliance with regulations of Annexes to MARPOL73/78, RS shall re-issue the Certificate (depending the Annex to the Convention the exemption is granted from) with Supplement (where available) in order to introduce the relevant information and remarks thereto, if not otherwise specified by the Flag State MA.
- **4.3.5.9** When an occasional survey is performed for issuing the discharge (exemption), the RS surveyor shall:

issue a Report (Form 6.3.10);

introduce an additional information on granting the ship with an exemption (waiver) with the reference to the Flag State MA decision and/or the RHO authorization and performing the occasional survey to the conventional section of the Survey Status.

## Российский морской регистр судоходства Руководство по техническому наблюдению за судами в эксплуатации

Russian Maritime Register of Shipping
Guidelines
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