GUIDELINES FOR STATUTORY SURVEYS OF SEA-GOING SHIPS ENGAGED ON NON-INTERNATIONAL VOYAGES

PART ONE SURVEYS AND CERTIFICATION

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Chapter 1 GENERAL

1 General provisions

1.1 General requirements

1.1.1 For ships which the flag State Administration approves the Guidelines and authorizes CCS to issue statutory certificates, CCS will carry out the initial survey and survey for maintenance of the validity of certificate in accordance with this PART and the authorization agreement upon application.

1.1.2 For ships applying for the survey of compliance with the Guidelines, CCS will carry out the initial survey and/or survey for maintenance of the validity of certificate as required by this PART, in accordance with the written agreement with the client. CCS will not ensure that the certificates be accepted by the flag State Administration in this case.

1.1.3 Manufacturers producing the products including essential equipment, components and materials used for the purpose of the safety at sea and protection of water environment and air pollution from ships, are to apply to CCS for marine products inspections according to Chapter 3, PART ONE of CCS Rules for Classification of Sea-going Steel Ships.

2 Certificates

2.1 Types and period of validity of certificate

2.1.1 In addition to the certification specifications of the flag State Administration, the following certificates may be issued by CCS to ships complying with the technical requirements of the Guidelines taking into account the applications of the Guidelines:

(1) Seaworthiness Certificate for Cargo Ships at Sea, the validity of which is not to exceed 5 years;

(2) Seaworthiness Certificate for Passenger Ships at Sea, the validity of which is not to exceed 2 years;

(3) International Tonnage Certificate (1969), which is to be permanently valid in normal condition;

(4) Oil Pollution Prevention Certificate for Ships at Sea, the validity of which is not to exceed 5 years;

(5) Sewage Pollution Prevention Certificate for Ships at Sea, the validity of which is not to exceed 5 years;

(6) Load Line Certificate for Ships at Sea, the validity of which is not to exceed 5 years;

(7) Passenger Quota Certificate for Ships at Sea, which is to be permanently valid in normal condition;

(8) Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk for Ships at Sea, the validity of which is not to exceed 5 years;

(9) Certificate of Fitness for the Carriage of Liquefied Gases in Bulk for Ships at Sea, the validity of which is not to exceed 5 years;

(10) Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk for Ships at Sea, the validity of which is not to exceed 5 years;

(11) Certificate of Fitness for Ships Carrying Dangerous Goods at Sea, the validity of which is not to exceed 5 years;

(12) Floating Dock Safety Certificate for Ships at Sea, the validity of which is not to exceed 5 years;

(13) Air Pollution Prevention Certificate for Ships at Sea, the validity of which is not to exceed 5 years;

(14) Certificate of Crew Accommodation Equipment for Ships at Sea, the validity of which is not to exceed 5 years;

(15) Safety Certificate for Special Purpose Ships at Sea, the validity of which is not to exceed 5 years;

(16) Anti-fouling System Certificate for Ships at Sea, which is to be permanently valid in normal condition;

(17) Fitness Certificate of Transporting of Limited Amounts of Hazardous and Noxious Liquid

Substances in Bulk on Offshore Supply Vessels, the validity of which is not to exceed 5 years.
(18) If a renewal survey is completed within three months before the expiry date of the existing certificate, the new certificate is to be valid from the date of completion of the renewal survey and its period of validity is to start from date of expiry of the existing certificate.
(19) If a renewal survey is completed after the expiry date of the existing certificate, the new certificate is to be valid from the date of completion of the renewal survey and its period of validity is to start from date of expiry of the existing certificate.
(20) If a renewal surveys is completed more than three months before the expiry date of the existing certificate, the new certificate is to be valid from the date of completion of the renewal survey and its period of validity is to start from the date of completion of the renewal survey.
(21) If a ship at the time when a certificate expires is not in a port in which it is to be surveyed, where deemed proper and reasonable by CCS, the certificate may be extended for a period not exceeding three months. The new certificate after completion of the renewal survey is to be valid from the date of completion of the renewal survey and its period of validity is to start from the date of expiry of the existing certificate before the extension was granted.
(22) If a certificate is issued for a period of less than the period as specified above, CCS may extend the period of validity of the certificate beyond the expiry date to the maximum period specified above, provided that the surveys are carried out in accordance with the applicable provisions of chapters of this PART.
(23) In special circumstances, a new certificate need not be dated from the date of expiry of the existing certificate. In such circumstances, the new certificate is to be valid from the date of completion of the renewal survey.

2.1.2 For ships the statutory certificate of which is issued as authorized by the flag State Administration, relevant exemption certificate may be issued in accordance with the authorization agreement and the validity of the exemption certificate is not to be longer than that of relevant certificates.

2.1.3 The format of the above certificates may be developed otherwise in accordance with the authorization agreement or client's entrustment agreement.

3 Surveys

3.1 Initial surveys

3.1.1 A complete inspection is to be carried out, before a ship is put into service and a ship to which the certificate is first issued, 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.

3.1.2 Plans and documents relating to certificates are to be submitted for examination and approval in order to confirm that the applicable requirements of the Guidelines are complied with. For the scope of examination of plans and documents, see Appendix 1 of this PART for the List of Plans and Documents to be Submitted for Approval.

3.1.3 After being surveyed and tested, where ships are deemed to comply with the requirements of the approved plans and documents, and that the workmanship and installation are in all respects satisfactory, certificates will be issued.

3.2 Surveys for keep the validity of certificate

3.2.1 Surveys for keeping the validity of certificate include:
(1) An annual survey is a general inspection of the items relating to the particular certificate to ensure that they have been maintained and remain satisfactory for the service for which the ship is intended. The annual survey is to be carried out within three months before or after each anniversary date[①] of the certificate.
(2) An intermediate survey is an inspection of specified items relating to the particular certificate

① Anniversary date means the day and the month of each year which will correspond to the date of expiry of the relevant certificate.

to ensure that they are in a satisfactory condition and fit for the service for which the ship is intended. The intermediate survey is to be carried out within three months before or after the secondary anniversary date or within three months before or after the third anniversary date of the appropriate certificate and is to take the place of one of the annual surveys.
(3) A renewal survey is an inspection before the expiry date of the ship's certificate of specified items relating to the particular certificate to ensure that they are in a satisfactory condition and fit for the service for which the ship is intended and leads to the issue of a new certificate. The renewal survey is to be carried out within three months before the expiry date of the certificate.
(4) An inspection of the outside of the ship's bottom is an inspection of the underwater part of the ship and related items to ensure that they are in a satisfactory condition and fit for the service for which the ship is intended. The inspections of the outside of the ship's bottom of cargo ships are to be carried out at least twice during any five-year period of the Seaworthiness Certificate for Cargo Ships at Sea and the interval between any two such inspections is not to exceed three years, and one of the two inspections is to be carried out at the same time as the renewal survey. The inspections of the outside of the ship's bottom of passenger ships are to be carried out once every two years. For floating docks over 10 years of age, a survey of the outside of the dock's bottom is to be carried out at least once within the interval of one special survey.
(5) An additional survey is an inspection, either general or partial according to the circumstances, to be made in case of ship accidents or when any defect is found that affects the safety or integrity of ship or the effectiveness or matching of its equipment.

3.2.2 Ships are to be properly maintained so that they are in a satisfactory technical condition and are fit for the service for which the ships are intended.

3.2.3 After being surveyed and deemed satisfactory, the statutory certificate is to be endorsed by the surveyor.

3.2.4 After being renewal surveyed and deemed fit for the intended service, a new certificate is to be issued by CCS.

4 Plans and documents

4.1 For details of plans and documents to be submitted as required in Chapters 2 to 17, reference is to be made to Appendix 1of this PART.

4.2 For plans and documents of ship's strength, machinery and electrical installations to be submitted, reference may be made to those as required in the present Rules by CCS or other equivalent standards, in addition to the provisions of the Guidelines.

4.3 Where any repetition of plans and documents occurs, only one copy is required to be submitted.

Chapter 2 SURVEYS FOR ISSUE OF THE SEAWORTHINESS CERTIFICATE FOR CARGO SHIPS AT SEA

1 General provisions

1.1 Surveys for issuing the Seaworthiness Certificate for Cargo Ships at Sea are to be carried out as follows:
(1) initial surveys;
(2) annual surveys;
(3) intermediate surveys;
(4) renewal surveys.

1.2 In addition, inspection of outside of the ship's bottom is to be carried out in accordance with the specified period for surveys for keeping the validity of the certificate.

1.3 This Chapter also applies to the inspections of engineering ships, floating cranes, tugs, barges and pusher tug-barge combinations.

2 Initial surveys

2.1 An initial survey is to consist of:
(1) examination of the plans;
(2) during construction and after installation, the survey is to include the following items and be in accordance with the approved plans:

① confirming stability information, loading manual, loading instrument (where applicable), damage control plans and damage control booklet (where applicable);
② confirming the arrangement of structural fire protection, including detail arrangements for bulkheads and deck structures, penetration and prevention of heat transferring;
③ confirming that the collision bulkhead is watertight up to the freeboard deck, that bulkheads separating both ends of the machinery space from the cargo and other spaces are watertight up to the freeboard deck;
④ confirming the watertightness of watertight decks, trunks, tunnels and ventilators;
⑤ confirming the main and auxiliary steering gears are in compliance with the specified requirements;
⑥ confirming the function of operating the remote means of closing valves fitted to the tanks that contain fuel oil, lubricating oil and other flammable oils;
⑦ confirming the function of the means of closing openings and remote shutdown of mechanical ventilation, and of the control of flame dampers;
⑧ confirming the provision of life-saving appliances;
⑨ confirming the launching and recovery operations of the launching appliances for each survival craft/rescue boat;
⑩ confirming the operation of water fire-extinguishing system is in accordance with the relevant requirements;
⑪ confirming that the fire control plans have been kept on board;
⑫ confirming the fixed fire-extinguishing system, and fire detection and fire alarm system of spaces are in accordance with the relevant requirements;
⑬ confirming drainage system and measures of prevention of jamming of discharges for ro-ro spaces are in accordance with the relevant requirements;
⑭ confirming fire-fighting appliances (portable/large fire extinguishers, portable foam applicator unit, emergency escape breathing devices, firemen's outfits, etc.) are in accordance with the relevant requirements;
⑮ confirming the provision and operation of lights, shapes and sound signal equipment; examining the provision, specifications and stowage of distress signals and line-throwing appliance;
⑯ confirming the provision and tests of onboard navigational equipment;
⑰ confirming the effectiveness of the motors and the control devices for steering gear,

windlass, fire pump, emergency fire pump, bilge pump, etc.;

⑱ confirming the effectiveness of the main, emergency, interim emergency and reserve sources of power;

⑲ confirming the effectiveness of the internal alarming system and communications system;

⑳ confirming the function of periodically unattended machinery spaces;

㉑ confirming the provision, installation and function of the radio-communication equipment;

㉒ confirming the water ingress detection system and their alarms of single hold cargo ships fitted with hold water level detectors;

㉓ confirming the application of effective corrosion-resistant coating for the seawater ballast tank, e.g. epoxy-based coating;

㉔ the additional requirements for oil tankers are as follows:

(a) examining the cargo tank openings, including gaskets, coamings, covers, screens and vent covers;
(b) examining the cargo tank pressure/vacuum valves and flame screens;
(c) examining the cargo tank vents, including vent mast and manifold;
(d) examining the flame screens for fuel oil tanks, oily-ballast tanks, oily-slop bilge tanks and void spaces;
(e) confirming that no potential ignition sources exist in or near the cargo tanks;
(f) examining the ladders in the cargo pump room;
(g) examining the pump room bulkheads for signs of leakage or fractures and the sealing arrangements of all penetrations of cargo pump room bulkheads;
(h) examining the pipeline in the pump room;
(i) examining the pump room ventilation system including ducts, dampers and flame screens;
(j) examining the cargo, bilge, ballast and stripping pumps for undue gland seal leakage and shutdown devices;
(k) confirming the operation of bilge systems;
(l) confirming the oil level indicator systems;
(m) confirming all electrical equipment in dangerous zones;
(n) conforming the deck foam system;
(o) confirming the water spray and sprinkler systems;
(p) confirming the cargo lines;
(q) confirming the fixed fire-extinguishing arrangements in the cargo pump room;
(r) examining the auxiliary venting arrangements of cargo tanks;
(s) examining the protective equipment in cargo pump-rooms (including temperature sensing devices, interlock of ventilation and lighting, system for continuous monitoring of the concentration of hydrocarbon gases and bilge level monitoring devices, etc.);
(t) confirming the inert gas system;
(u) confirming that emergency towing arrangements of oil tankers of not less than 20,000 tonnes deadweight have been arranged in accordance with the approved plans.

㉕ applicable items as specified in 1.3 of this Chapter;

㉖ additional requirements for pusher tug-barge combinations are to confirm the connectors of pusher tugs and barges;

(3) confirming that the ship is provided with all necessary documents.

2.2 After a satisfactory initial survey, the Seaworthiness Certificate for Cargo Ships at Sea is to be issued.

For pusher tug-barge combination connected in articulated manner, the Seaworthiness Certificate for Cargo Ships at Sea is to be issued to the pusher tug and barge respectively, but the column of "ship type" in the certificate is to be marked as follows:

Pusher tug: PB Combination – Pusher;

Barge: PB Combination – Barge.

For rigidly connected pusher tug-barge combination, the Seaworthiness Certificate for Cargo Ships at Sea is to be issued, but the column of "ship type" in the certificate is to be marked with "Rigid Connection PB Combination"

3 Annual surveys

3.1 An annual survey is to consist of:
(1) examining the shell plating (above W.L.), strength deck, inner bottom plating, watertight bulkhead plating, superstructures, deckhouses, etc. and their closing devices;
(2) checking the watertight doors and testing them under operation conditions;
(3) confirming that no significant changes have been made to the arrangement of structural fire protection;
(4) confirming the conditions of the anchoring and mooring equipment;
(5) examining and performance testing the main and auxiliary steering arrangements including control system;
(6) examining the lifeboats/rescue boats and their equipment, the launching and embarkation arrangements;
(7) examining the liferafts and their launching and embarkation arrangements, the hydrostatic release units;
(8) randomly examining the technical condition of lifejackets/immersion suits, externally examining the lifebuoys and checking the number and locations;
(9) confirming the validity of distress signals and line-throwing rockets;
(10) confirming that the fire control plans have been posted as required;
(11) checking the number and stowage locations of the fire-fighting articles and emergency escape breathing devices;
(12) externally examining and alarm testing the fixed fire-extinguishing systems;
(13) examining oil fuel tanks, oil fuel pumps and means of remote shutdown of ventilation in machinery spaces, and where practicable, performance testing;
(14) operation testing the closing arrangements of ventilators, funnel annular spaces, skylights, doorways and tunnels;
(15) checking firemen's outfits;
(16) confirming the deviation corrections for magnetic compasses;
(17) examining the navigational aids such as gyro compass and auxiliary compass, echo sounder, etc.;
(18) examining and testing the ship's navigation lights and flashing lights;
(19) test of the main and emergency sources of power for navigation lights;
(20) examining the ship's shapes, signal flags and smoke signals;
(21) examining the sound signal equipment;
(22) externally examining the main engine, propulsion system and auxiliary machineries, checking the utilization conditions and relevant records;
(23) confirming that means of escape for machinery spaces and accommodation spaces are clear of blockage;
(24) confirming the function of internal alarming and communication systems;
(25) examining the bilge drainage system and operation of bilge pumps and drainage system of ro-ro spaces, confirming the function of anti-blocking measures for drain openings of ro-ro spaces;
(26) confirming the effectiveness of boilers, pressure vessels and their appurtenances including gauges and safety valves;
(27) confirming the function of main, emergency, interim emergency and reserve power sources;
(28) confirming the function of fire pumps and emergency fire pumps;
(29) examining the motors and their control devices for steering gear, windlass, fire pumps, emergency fire pumps, bilge pumps, etc.;
(30) confirming the provision, installation and function of radio-communication equipment;
(31) examining randomly the water ingress detection system and its alarm for single cargo tank ship fitted with water level detectors in the cargo tank;
(32) for oil tankers, the applicable items specified in 2.1(2)㉔ of this Chapter to be included;
(33) for pusher tug-barge combinations, the applicable items specified in 2.1(2)㉖ of this Chapter to be included;

(34) examining the auxiliary venting arrangements of cargo tanks;
(35) examining the inert gas system;
(36) applicable items specified in 1.3 of this Chapter.

3.2 Checking the validity of the relevant certificates, and that the ship is provided with all necessary documents.

3.3 After a satisfactory annual survey, the Seaworthiness Certificate for Cargo Ships at Sea is to be endorsed.

4 Intermediate surveys

4.1 An intermediate survey is to consist of:
(1) the provisions of 3.1 of this Chapter;
(2) for ships over 5 years of age, an internal examination of representative spaces used for water ballast;
(3) for oil tankers over 10 years of age, an internal examination of selected cargo spaces;
(4) for dry cargo ships over 15 years of age, an internal examination of selected cargo spaces;
(5) confirming that the capacity of foam concentration or CO_2 and the effectiveness have been checked and their distribution pipes have been proved to be free from obstacles;
(6) a testing of all fire detection and alarm systems;
(7) a performance test of the remote shut-down devices for fuel oil tanks, fuel oil pumps and ventilations in machinery spaces, and of the remote controls for opening and closing skylights and other openings;

4.2 Checking the validity of the relevant certificates, and that the ship is provided with all necessary documents.

4.3 After a satisfactory intermediate survey, the Seaworthiness Certificate for Cargo Ships at Sea is to be endorsed.

5 Renewal surveys

5.1 A renewal survey is to consist of:
(1) the applicable items as specified in 4.1, 4.2 and 1.3 of this Chapter;
(2) internal examination of forepeak and afterpeak tanks, double bottom tanks, chain lockers and other tanks;
(3) examination of engine rooms;
(4) examination of cargo spaces;
(5) hose testing for watertight doors, portholes and hatch covers;
(6) launching and hook release testing for launching gear of lifeboats/rescue boats;
(7) operation testing for motor of lifeboats/rescue boats ahead and astern;
(8) closing testing for fans, ventilators and other openings in cargo holds;
(9) performance testing for bilge systems;
(10) performance testing for anchoring equipment;
(11) performance testing for ruddering equipment;
(12) examining and testing the water ingress detection system and its alarm for single cargo tank ship fitted with water level detectors in the cargo tank.

5.2 After a satisfactory renewal survey, the new Seaworthiness Certificate for Cargo Ships at Sea is to be issued.

Chapter 3 INSPECTIONS OF THE OUTSIDE OF THE SHIP'S BOTTOM

1 General provisions

1.1 Inspections of the outside of the ship's bottom are normally to 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 when the conditions are satisfactory and the proper equipment and suitably trained staff are available. Special consideration is to be given for ships of 15 years of age and over before they are permitted to have such surveys afloat. Inspections of the outside of the bottom of bulk carriers and tankers of 15 years of age and over are to be carried out with the ship in a dry dock.

1.2 Where underwater inspection is carried out in lieu of dock survey, the corresponding requirements in the present Rules by CCS are to be complied with.

2 Inspections of the outside of the ship's bottom

2.1 The inspection of outside of ship's bottom is to consist of:
(1) examining the shell plating including bottom plating, plate keels, side plating, bilge keels, stems, stern posts and stern frames;
(2) examining the propellers and rudders;
(3) noting the clearances measured in the rudder bearings;
(4) noting the clearances measured in the propeller shafts and examining the shaft seals;
(5) examining the sea chests, sea valves, side drainage valves, shell connections, and the gratings in way of the sea water inlets;
(6) anchors and chain cables to be completely pulled out for examination and measuring the diameter of chain cables where necessary (applicable for renewal survey);
(7) corrosion protection and coating of hull.

2.2 After a satisfactory inspection of outside of ship's bottom, the Seaworthiness Certificate for Cargo Ships at Sea is to be endorsed.

Chapter 4 SURVEYS FOR ISSUE OF THE LOAD LINE CERTIFICATE FOR SHIPS AT SEA

1 General provisions

1.1 Surveys for issuing the Load Line Certificate for Ships at Sea are to be carried out as follows:
(1) initial surveys;
(2) annual surveys;
(3) renewal surveys.

2 Initial surveys

2.1 An initial survey is to consist of:
(1) examining the plans;
(2) confirming the stability calculations and loading manual;
(3) during construction and after installation, the survey is to include the following items and to be in accordance with the approved plans:

① checking that, as far as its strength is concerned, the ship has been constructed in accordance with the approved plans;
② confirming that the deck line and load line mark are properly assigned as required;
③ examining the superstructure end bulkheads and the openings therein;
④ examining the means of securing the weathertightness of cargo hatchways, other hatchways and other openings on the freeboard and superstructure decks and a hose testing to be carried out;
⑤ examining the ventilators and air pipes including their coamings and closing devices;
⑥ examining the watertight integrity of the closures to any openings in the ship's side below the freeboard deck;
⑦ examining the scuppers, inlets and discharges;
⑧ examining the side scuttles and deadlights;
⑨ examining the bulwarks including the provision of freeing ports;
⑩ examining the guardrails, gangways, walkways and other means provided for the protection of the crew and for gaining access to and from crew's quarters and working spaces;
⑪ examining, when applicable, the special requirements for ships permitted to sail with reduced freeboards;
⑫ checking, when applicable, the fittings and appliances for timber deck cargoes;

(4) checking whether loading and ballast information are provided to the master.

2.2 After a satisfactory initial survey, the Load Line Certificate for Ships at Sea is to be issued.

3 Annual surveys

3.1 An annual survey is to consist of:
(1) checking of the positions of the deck line and load line;
(2) checking that no alterations have been made to the hull or superstructures that would affect the calculations determining the position of the load lines;
(3) examining the superstructure end bulkheads and the openings therein;
(4) examining the means of securing the weathertightness of cargo hatchways, their coamings, other hatchways and other openings on the freeboard and super-structure decks and, where necessary, a hose test to be carried out;
(5) examining the ventilators and air pipes including their coamings and closing devices;
(6) examining the watertight integrity of the closures to any openings in the ship's side below the freeboard deck;
(7) examining the scuppers, inlets and discharges;
(8) examining the side scuttles and deadlights;

(9) examining the bulwarks including the provision of freeing ports;
(10) examining the guardrails, gangways, walkways and other means provided for the protection of the crew and for gaining access to and from crew′s quarters and working spaces;
(11) examining, when applicable, the special requirements for ships permitted to sail with reduced freeboards;
(12) checking, when applicable, the fittings and appliances for timber deck cargoes.

3.2 Checking the validity of the relevant certificate, and that the ship is provided with all necessary documents.

3.3 After a satisfactory annual survey, the Load Line Certificate for Ships at Sea is to be endorsed.

4 Renewal surveys

4.1 A renewal survey is to consist of:
(1) items as specified in 3.1 and 3.2 of this Chapter;
(2) confirming, in general, that the ship’s hull is provided with sufficient strength at the certified draught.

4.2 After a satisfactory renewal survey, the new Load Line Certificate for Ships at Sea is to be issued.

Chapter 5 SURVEYS FOR ISSUE OF THE OIL POLLUTION PREVENTION CERTIFICATE FOR SHIPS AT SEA

1 General provisions

1.1 Surveys for issuing the Oil Pollution Prevention Certificate for Ships at Sea are to be carried out as follows:
(1) initial surveys;
(2) annual surveys;
(3) intermediate surveys;
(4) renewal surveys.

2 Initial surveys

2.1 An initial survey is to consist of:
(1) examining the plans;
(2) during construction and after installation, the survey is to include the following items and be in accordance with the approved plans:
- ① confirming that the Products Certificate of Oil Pollution Prevention Equipment is available;
- ② confirming that the installation of oil pollution prevention equipment is in compliance with the design requirements and that the performance test has been completed satisfactorily;
- ③ confirming that the Oil Record Book is available;
- ④ confirming the provision of the standard discharge connection;

(3) confirming that the ship is provided with all necessary documents.

2.2 After a satisfactory initial survey, the Oil Pollution Prevention Certificate for Ships at Sea is to be issued.

3 Annual surveys

3.1 An annual survey is to consist of:
(1) generally examining the oily-water separating equipment or oil filtering equipment, where necessary, testing the operation;
(2) generally examining the oil discharge monitoring and control system, where necessary, testing the automatic or manual operation of the means provided to stop the discharge of effluent;
(3) confirming the working conditions of the indicator and recorder for the discharge monitoring and control equipment;
(4) checking the qualification for sludge tanks and sump tanks and their discharge equipment;
(5) sampling examination for the discharge of oily-water or examining the analysis results of recent records;
(6) confirming that the standard discharge connection is provided;
(7) confirming the separation between fuel oil and water ballast system;
(8) confirming that no alterations have been made to oil pollution prevention systems;
(9) confirming that the oil pollution prevention systems are in compliance with the required provisions (if appropriate).

3.2 Checking the validity of the relevant certificates and records and that the ship is provided with all necessary documents.

3.3 After a satisfactory annual survey, the Oil Pollution Prevention Certificate for Ships at Sea is to be endorsed.

4 Intermediate surveys

4.1 An intermediate survey is to consist of:

(1) the provisions of 3.1 of this Chapter;
(2) examining the oily-water separating equipment or oil filtering equipment, including associated pumps, piping and fittings for wear and corrosion;
(3) examining the oil content meter (15 ppm alarm and bilge monitor) for obvious defects, deterioration or damage, and checking the calibration of the oil content meter;
(4) checking and confirming the effectiveness of oil pollution prevention equipment on board the oil tanker.

4.2 Checking the validity of the relevant certificates, and that the ship is provided with all necessary documents.

4.3 After a satisfactory intermediate survey, the Oil Pollution Prevention Certificate for Ships at Sea is to be endorsed.

5 Renewal surveys

5.1 A renewal survey is to consist of:
(1) the provisions of 4.1 and 4.2 of this Chapter;
(2) an operation test for the oily-water separating equipment or oil filtering equipment;
(3) an operation test for the oil discharge monitoring system or oil filtering system alarm;
(4) an operation test for the manual or automatic means provided to stop the discharge of effluent.

5.2 After a satisfactory renewal survey, the new Oil Pollution Prevention Certificate for Ships at Sea is to be issued.

Chapter 6 SURVEYS FOR ISSUE OF THE SEWAGE POLLUTION PREVENTION CERTIFICATE FOR SHIPS AT SEA

1 General provisions

1.1 Surveys for issuing the Sewage Pollution Prevention Certificate for Ships at Sea are to be carried out as follows:
(1) initial surveys;
(2) renewal surveys.

2 Initial surveys

2.1 An initial survey is to consist of:
(1) examining the plans;
(2) during construction and after installation, the survey is to include the following survey items and be in accordance with the approved plans:

① confirming that the Products Certificate of the Sewage Treatment Plant is valid;
② confirming that the installation of equipment and tests of systems have been satisfactorily completed.

2.2 After a satisfactory initial survey, the Sewage Pollution Prevention Certificate for Ships at Sea is to be issued.

3 Renewal surveys

3.1 The requirements for the renewal survey are to be the same as specified in 2.1(2) of this Chapter.

3.2 After a satisfactory renewal survey, the new Sewage Pollution Prevention Certificate for Ships at Sea is to be issued.

Chapter 7 SURVEYS FOR ISSUE OF THE SEAWORTHINESS CERTIFICATE FOR PASSENGER SHIPS AT SEA

1 General provisions

1.1 Surveys for issuing the Seaworthiness Certificate for Passenger Ships at Sea are to be carried out as follows:
(1) initial surveys;
(2) annual surveys;
(3) renewal surveys.

1.2 In addition, inspection of outside of the ship's bottom is to be carried out in accordance with the specified period for surveys for keeping the validity of the certificate.

1.3 The grade of passenger ships: grade I/II/III is to be indicated in the Seaworthiness Certificate for Passenger Ships at Sea after a satisfactory initial survey or renewal survey of passenger ships.

2 Initial surveys

2.1 An initial survey is to consist of:
(1) examining the plans;
(2) during construction and after installation, the survey is to include the following survey items and be in accordance with the approved plans:

① an inspection of the outside of the ship's bottom;
② confirming the arrangement of subdivisions, including the ship's stability in the damaged condition, and checking the subdivision load line;
③ confirming that gangways, cargo ports and other openings fitted below the margin line may be effectively closed;
④ confirming the arrangements to maintain the watertight integrity above the margin line;
⑤ testing the operation of the watertight doors both from the navigation bridge and locally at the door itself in the event of a failure of the main and emergency sources of power;
⑥ confirming that the main and auxiliary steering gear are properly arranged and operated;
⑦ confirming all aspects of the installation of the structural fire protection, including detail arrangements for bulkheads and deck structures, penetration and prevention of heat transferring, and testing any manual and automatic fire doors, including the means of closing the openings in "A" and "B" class divisions;
⑧ confirming the fixed fire-extinguishing system of spaces; examining the provision of fire-fighting appliances (portable/large fire extinguishers, portable foam applicator unit, emergency escape breathing devices, firemen's outfits, etc.);
⑨ confirming the operation of any fire detection, alarm system and automatic sprinkler system;
⑩ confirming the provision and tests of onboard public address system;
⑪ confirming the operation of the remote means of closing the valves on the tanks that contain oil fuel, lubricating oil and other flammable oils;
⑫ confirming the operation of the remote means of control provided for opening and closing the skylights and other openings, stopping mechanical ventilation and stopping oil fuel pumps;
⑬ confirming that precautions, taken to prevent any oil that may escape, filter or heater from coming into contact with heated surfaces, are efficient;
⑭ confirming the provision of the survival craft and rescue boats, the embarkation arrangement and the launching and recovery operations of the appliances for each survival craft and rescue boat;
⑮ confirming the provision and stowage of lifejackets, immersion suits and lifebuoys;
⑯ confirming that the means of escape for passengers and crew are in accordance with the relevant requirements, and free from any obstacles;

⑰ confirming the provision and operation of all signaling equipment;
⑱ confirming the provision and operation of all navigational equipment;
⑲ confirming the provision and operation of all radio-communication equipment;
⑳ confirming the installation and operation of main and auxiliary machineries, boilers and pressure vessels, electrical installations, etc.;
㉑ the items to which the provisions of 2.1(2) of Chapter 3 and 1.3 of this Chapter apply;

(3) confirming that the ship is provided with all necessary documents.

2.2 After a satisfactory initial survey, the Seaworthiness Certificate for Passenger Ships at Sea is to be issued.

3 Annual surveys

3.1 An annual survey is to consist of:
(1) examining the arrangement of subdivisions, including the ship's stability in the damaged condition, and checking the subdivision load line;
(2) examining that gangways, cargo ports and other openings fitted below the margin line may be effectively closed;
(3) examining the arrangements to maintain the watertight integrity above the margin line;
(4) testing the operation of the watertight doors both from the navigation bridge and locally at the door itself in the event of a failure of the main and emergency sources of power;
(5) checking that the valves for closing the main and auxiliary sea inlets and discharges in engine rooms are readily accessible and indicators showing the status of the valves are provided;
(6) checking the main and auxiliary steering gear and testing their operation;
(7) confirming that no change has been made to structural fire protection, and examining and testing manual and automatic fire doors, including the means of closing the openings in "A" and "B" class divisions;
(8) checking all fixed fire-extinguishing system and fire-fighting appliances, where applicable, testing the operation of water fire-extinguishing system, fire detection and fire alarm system;
(9) examining and testing the remote means of closing the valves on tanks that contain oil fuel, lubricating oil and other flammable oils;
(10) examining special requirements for fire-extinguishing in the engine rooms, and confirming the operation of the remote means of control provided for opening and closing the skylights and other openings, stopping mechanical ventilation and stopping oil fuel pumps;
(11) examining the bilge drainage system and operation of bilge pumps and confirming they are in normal working condition;
(12) examining the survival craft and rescue boats (including equipment) and their launching appliances, where applicable, testing the launching of the craft;
(13) examining the provision and stowage of lifejackets, immersion suits and lifebuoys;
(14) examining that the means of escape for passengers and crew are in accordance with the relevant requirements;
(15) examining all signal equipment and confirming that they are in the normal operation condition;
(16) examining all navigational equipment and confirming that they are in the normal operation condition;
(17) examining all radio-communication equipment, and confirming that they are in the normal operation condition;
(18) examining the onboard public address system and confirming their compliance with relevant requirements;
(19) confirming that the main and auxiliary machineries, boilers and pressure vessels, and electrical installations are in the normal operation condition;
(20) the items to which the provisions of 3.1 of Chapter 3 and 1.3 of this Chapter apply.

3.2 Checking the validity of the relevant certificates and records, and that the ship is provided with all necessary documents.

3.3 After a satisfactory annual survey, the Seaworthiness Certificate for Passenger Ships at Sea is to be endorsed.

4 Renewal surveys

4.1 A renewal survey is to be carried out once every two years and consist of:
(1) an inspection of the outside of ship’s bottom;
(2) the provisions of 3.1 and 3.2 of this Chapter.

4.2 After a satisfactory renewal survey, the new Seaworthiness Certificate for Passenger Ships at Sea is to be issued.

Chapter 8 SURVEYS FOR ISSUE OF THE FLOATING DOCK SAFETY CERTIFICATE FOR SHIPS AT SEA

1 General provisions

1.1 Surveys for issuing the Floating Dock Safety Certificate for Ships at Sea are to be carried out as follows:
(1) initial surveys;
(2) annual surveys; For floating docks operating in sea water conditions (including sea-river combination, the same below), an annual survey is to be carried out within 3 months before or after each anniversary date of the certificate;
(3) renewal surveys; For floating docks operating in sea water conditions, the first renewal survey is to be completed within 5 years from the date of initial classification survey and thereafter within 5 years from the credited date of the previous renewal survey.

1.2 The technical requirements of floating docks are to comply with the applicable provisions in CCS Rules for Classification of Floating Docks.

1.3 For floating docks, inspections of outside of ship's bottom are to be carried out in accordance with the relevant provisions of Chapter 3.

2 Initial surveys

2.1 An initial survey is to consist of:
(1) examining the plans;
(2) during construction and after installation, the survey is to include the following items and be in accordance with the approved plans:

① confirming the stability and freeboard information;
② examining or recheck the material and confirming the relevant products certificates;
③ inspecting strength, structure and integrity;
④ measuring the ship's stress, by means of, in general, a stress gauge under the operation condition of floating docks
⑤ confirming the provision of life-saving appliances, fire-extinguishing arrangements and signal equipment;
⑥ tightness and pressure tests of the pontoons;
⑦ confirming the closing appliances, including remote controls;
⑧ confirming the installation and protection of machineries, boilers and their piping systems and accessories;
⑨ confirming the communication facilities between the control stations and the machinery spaces;
⑩ anchoring and mooring tests, sinkage trials;
⑪ the provisions of 1.5 and other relevant survey items;

(3) confirming that the floating dock is provided with all necessary documents.

2.2 After a satisfactory initial survey, the Floating Dock Safety Certificate for Ships at Sea is to be issued.

3 Annual surveys

3.1 At each annual survey, the following parts are to be examined, to ensure they are in good condition:
(1) structures above the light waterline (such as exposed inner walls, shell plating, pontoon deck, etc.);
(2) safety and top decks;
(3) supporting blocks and their foundations;
(4) casings and skylights;

(5) companionways and ladders, hatchways and man-holes with their closing and securing arrangements;
(6) air pipes, overboard scuppers and discharges;
(7) hinged gangways;
(8) guard rails and stanchions;
(9) connections in way of gaps between two adjacent pontoons for pontoon type docks;
(10) working and maximum submerged draught mark;
(11) the provisions of 1.5 and other relevant survey items.

3.2 Checking the validity of the relevant certificates and records and that the ship is provided with all necessary documents.

3.3 After a satisfactory annual survey, the Floating Dock Safety Certificate for Ships at Sea is to be endorsed.

4 Renewal surveys

4.1 A renewal survey is to consist of:
(1) items as specified in 3.1 and 3.2 of this Chapter;
(2) pontoon and side wall tanks to be cleaned and examined internally and tested by a head sufficient to give the maximum pressure that can be experienced in service. For floating docks over 15 years of age, oil fuel tanks forming part of the main structure are to be examined internally;
(3) spaces above safety deck to be examined internally, and battens, lining and pipe casings to be removed as required;
(4) where the surface of plating is covered with cement, composition or wood sheathing the covering is to be examined and sounded. If cement or composition is found to be not adhering to the plating it is to be removed for examination of the plating. Where wood sheathing is deteriorated or badly worn it is to be removed for examination of the plating;
(5) the efficient condition of the means of communication between control position and machinery spaces, are to be ascertained;
(6) where fitted, sounding pipes are to be examined and the thick steel plate fitted below each sounding pipe is to be in satisfactory condition;
(7) the Surveyor may require to ascertain the thickness of the materials in any portion of the structure where signs of wastage are evident or wastage is normally found. Any parts of the structure which are found defective or materially reduced in scantlings are to be made good to the Surveyor's satisfaction;
(8) at the first renewal survey for the dry dock having reached 24 years of age, and at every two intervals thereafter, the thickness of the structure are to be determined by an approved method to assess the general condition. Two belts of gaugings are to be made within the 0.5 L_D[①] midlength of the dry dock;
(9) other relevant survey items.

4.2 After a satisfactory renewal survey, the new Floating Dock Safety Certificate for Ships at Sea is to be issued.

① The length, L_D, in m, means the distance from the aft end of the aftermost pontoon to the fore end of the forward pontoon, but is exclusive of non-integral end platforms or swing bridges.

Chapter 9 SURVEYS FOR ISSUE OF THE CERTIFICATE OF CREW ACCOMMODATION EQUIPMENT FOR SHIPS AT SEA

1 General provisions

1.1 Surveys for issuing the Certificate of Crew Accommodation Equipment for Ships at Sea are to be carried out as follows:
(1) initial surveys;
(2) renewal surveys.

2 Initial surveys

2.1 An initial survey is to consist of:
(1) examining the plans;
(2) during construction and after installation, the survey is to include the following survey items and be in accordance with the approved plans:
① confirming the arrangement of crew accommodation;
② confirming the provision of crew accommodation equipment.

2.2 After a satisfactory initial survey, the Certificate of Crew Accommodation Equipment for Ships at Sea is to be issued.

3 Renewal surveys

3.1 Requirements for renewal surveys are the same as those of 2.1(2) of this Chapter.

3.2 After a satisfactory renewal survey, the Certificate of Crew Accommodation Equipment for Ships at Sea is to be issued.

Chapter 10 SURVEYS FOR ISSUE OF THE CERTIFICATE OF FITNESS FOR SHIPS CARRYING DANGEROUS GOODS AT SEA

1 General provisions

1.1 Unless expressly provided otherwise, this Chapter is to apply to all sea-going ships engaged on non-international voyages, carrying dangerous goods.

1.2 Surveys for issuing the Certificate of Fitness for Ships Carrying Dangerous Goods at Sea are to be carried out as follows:
(1) initial surveys;
(2) annual surveys;
(3) intermediate surveys;
(4) renewal surveys.

2 Initial surveys

2.1 Examination of plans
2.1.1 Examination of plans and design of equipment and arrangements for carrying dangerous goods includes:
(1) confirming the dangerous goods intended to be carried and the required type of ship, cargo spaces, form of carriage (bulk or package) and relevant requirements;
(2) examining arrangement of fire protection in the cargo spaces for carriage of dangerous goods;
(3) examining the special arrangements for carrying dangerous goods, including requirements for water supply, electrical equipment and wiring, fire detection and fire alarm systems, ventilation, bilge pumping of cargo tank, personnel protection, portable fire extinguishers and sprinkler or flooding systems.

2.1.2 During construction and after installation, the survey and test items of equipment and arrangements for carrying dangerous goods include:
(1) examining arrangement of fire protection in the cargo spaces for carriage of dangerous goods, complying with special requirements and the approved plans;
(2) examining the special arrangements for carrying dangerous goods, including checking water supply, electrical equipment and wiring, fire detection and fire alarm systems, ventilation, bilge pumping of cargo tank, personnel protection including the provision of protective clothing and portable appliances and examining and testing of portable fire extinguishers and sprinkler or flooding systems;
(3) checking information such as certificates, record books, operation manual and other instructions as required for carriage of dangerous goods;
(4) after satisfactory surveys, the Certificate of Fitness for Ships Carrying Dangerous Goods at Sea is to be issued.

3 Annual surveys

3.1.1 Examination of the Certificate of Fitness for Ships Carrying Dangerous Goods at Sea and other records:
(1) checking the validity of the ship's Seaworthiness Certificate;
(2) checking the validity of Safety Management Certificate and that the copy of document or certificate is kept onboard the ship;
(3) checking the validity of the Certificate of Fitness for Ships Carrying Dangerous Goods at Sea.

3.1.2 Examination of the Certificate of Fitness for Ships Carrying Dangerous Goods at Sea in relation to equipment and arrangements:
(1) confirming that no change has been made to the fire protection arrangement and special requirements of cargo spaces for carriage of dangerous goods;
(2) examining the special arrangements for carrying dangerous goods, including checking water supply (testing the performance of remote fire pumps, or examining the charging pressure of fire

mains), electrical equipment and wiring, fire detection and fire alarm systems, ventilation, bilge pumping of cargo tank, personnel protection including the provision of protective clothing and portable appliances, portable fire extinguishers and sprinkler or flooding systems;
(3) after satisfactory surveys, the Certificate of Fitness for Ships Carrying Dangerous Goods at Sea is to be endorsed;
(4) if, at such a survey, the ship or its equipment is found unsatisfactory, the owner is to be required to take corrective measures immediately. If no corrective measure is taken, the certificate is to be withdrawn.

4 Intermediate surveys

4.1.1 Examination of the Certificate of Fitness for Ships Carrying Dangerous Goods at Sea and other records:
(1) the provisions of 3.1.1.

4.1.2 Examination of the Certificate of Fitness for Ships Carrying Dangerous Goods at Sea in relation to equipment and arrangements:
(1) the provisions of 3.1.2(1) and (2);
(2) testing the operation of the means for closing the various openings within cargo spaces (including vehicle spaces, special spaces and ro-ro spaces) for carriage of dangerous goods;
(3) after satisfactory surveys, the Certificate of Fitness for Ships Carrying Dangerous Goods at Sea is to be endorsed;
(4) if, at such a survey, the ship or its equipment is found unsatisfactory, the owner is to be required to take corrective measures immediately. If no corrective measure is taken, the certificate is to be withdrawn.

5 Renewal surveys

5.1.1 Examination of the Certificate of Fitness for Ships Carrying Dangerous Goods at Sea in relation to equipment and arrangements and other records:
(1) In addition to the validity of the Certificate of Fitness for Ships Carrying Dangerous Goods at Sea, examining the validity of the ship’s Seaworthiness Certificate, Safety Management Certificate and the copy of document or certificate kept onboard the ship.

5.1.2 Examination of the Certificate of Fitness for Ships Carrying Dangerous Goods at Sea in relation to equipment and arrangements:
(1) examinations of the equipment and arrangements for the carriage of dangerous goods are to be carried out in accordance with 4.1.2(1) and (2);
(2) checking the certificates, record books, operation manual and other instructions necessary for carriage of dangerous goods;
(3) after satisfactory surveys, the Certificate of Fitness for Ships Carrying Dangerous Goods at Sea is to be issued.

Chapter 11 SURVEYS FOR ISSUE OF THE SAFETY CERTIFICATE FOR SPECIAL PURPOSE SHIPS AT SEA

1 General provisions

1.1 The Safety Certificate for Special Purpose Ships at Sea is to consist of surveys required for cargo ships other than oil tankers and to comply with the applicable provisions for special purpose ships as specified by PARTs of the Guidelines.

Chapter 12 SURVEYS FOR ISSUE OF THE POLLUTION PREVENTION CERTIFICATE FOR THE CARRIAGE OF NOXIOUS LIQUID SUBSTANCES IN BULK FOR SHIPS AT SEA

1 General provisions

1.1 Surveys for issuing the Pollution Prevention Certificate for The Carriage of Noxious Liquid Substances in Bulk for Ships at Sea are to be carried out as follows:
(1) initial surveys;
(2) annual surveys;
(3) intermediate surveys;
(4) renewal surveys.

2 Initial surveys

2.1 An initial survey is to consist of:
(1) examining the plans, including:
① the list of noxious liquid substances intended to be carried by ship;
② the pumping system;
③ the stripping system;
④ the tank washing system and equipment;
⑤ the underwater discharge arrangements;
⑥ the ventilation equipment for residue removal;
⑦ the heating system for solidifying and high viscosity substances;
⑧ the Procedures and Arrangements Manual;
(2) during construction and after installation, the following survey items and to be in accordance with the approved plans:
① confirming that the pumping and stripping systems are satisfactory and that portable pipes or bends in sufficient number, if required, are on board;
② conducting the water test for assessing the stripping quantity;
③ confirming that the tank washing machines provided on board are in working order, are those described in the Procedures and Arrangements Manual and are installed in accordance with the approved plans;
④ confirming that the wash water heating system, if required, is installed in accordance with the approved plans;
⑤ confirming that the number and position of tank cleaning openings for portable machines are in accordance with the approved plans;
⑥ confirming that the underwater discharge outlet(s) are in accordance with the approved plans;
⑦ confirming that means are provided in the common discharge piping to isolate openings provided above the waterline;
⑧ verifying by actual test that the discharge rate of the pumps, where a variable rate type is used, can be controlled as specified in the Procedures and Arrangements Manual;
⑨ verifying that means for restricting the dis charge flow of fixed rate pumps to the specified rates have been fitted;
⑩ confirming the satisfactory operation of the recording device, as fitted, and verifying by an actual flow test that it has an accuracy of ±15% or better;
⑪ confirming that the ventilation equipment for residue removal is installed in accordance with the approved plan and is in working order and that the pressure in the driving medium for portable fans for ventilation equipment for residue removal can be achieved to give the required fan capacity;
⑫ confirming that the heating system for solidifying and high viscosity substances is installed in accordance with the approved plan;
(3) confirming that the ship is provided with all necessary documents, including:
① the Procedures and Arrangements Manual;

② the Cargo Record Book;
③ the oil discharge monitor is certified for oil like substances as may be listed on the Oil Pollution Prevention Certificate for Ships at Sea;
④ information and data in relation to loading and damage stability;
⑤ Shipboard Marine Pollution Emergency Plan for Noxious Liquid Substances or Shipboard Marine Pollution Emergency Plan.

2.2 After a satisfactory initial survey, the Pollution Prevention Certificate for The Carriage of Noxious Liquid Substances in Bulk for Ships at Sea is to be issued.

3 Annual surveys

3.1 An annual survey is to consist of:
(1) examining visually and confirming that the pumping and piping systems, including a stripping system if fitted, and associated equipment remain as approved;
(2) examining visually the tank washing piping and confirming that the type, capacity, number, and arrangement of the tank washing machines are as approved;
(3) examining visually the wash water heating system;
(4) examining visually, as far as practicable, the underwater discharge arrangements;
(5) confirming that the means of controlling the rate of discharge of the residue is as approved;
(6) confirming that the flow rate indicating device is operable;
(7) confirming that the ventilation equipment for residue removal is as approved;
(8) examining visually, as far as is accessible, the heating system required for solidifying and high viscosity substances;
(9) confirming that any cargo tank high level alarms are operable;
(10) confirming any additional requirements listed on the Pollution Prevention Certificate for The Carriage of Noxious Liquid Substances in Bulk for Ships at Sea are complied with.

3.2 Checking the validity of the relevant certificates and records and that the ship is provided with all necessary documents.

3.3 After a satisfactory annual survey, the Pollution Prevention Certificate for The Carriage of Noxious Liquid Substances in Bulk for Ships at Sea is to be endorsed.

4 Intermediate surveys

4.1 An intermediate survey is to consist of:
(1) the provisions of 3.1 and 3.2 of this Chapter;
(2) verifying from the cargo record book that the pumping and stripping arrangements have been emptying the tanks efficiently and are all in working order;
(3) confirming, if possible, that the discharge out let(s) are in good condition;
(4) confirming the satisfactory operation of the recording device, as fitted, and verifying by an actual flow test that it has an accuracy of ±15% or better;
(5) confirming that the ventilation equipment for residue removal is satisfactory and that the pressure in the driving medium for portable fans for ventilation, equipment for residue removal can be achieved to give the required fan capacity.

4.2 After a satisfactory intermediate survey, the Pollution Prevention Certificate for The Carriage of Noxious Liquid Substances in Bulk for Ships at Sea is to be endorsed.

5 Renewal surveys

5.1 A renewal survey is to consist of:
(1) the provisions of 4.1 of this Chapter;
(2) confirming that the pumping and stripping system s are satisfactory and that portable pipes or bends in sufficient n umber, if required, are on board;
(3) conducting the water test for assessing the stripping quantity;

(4) confirming that the tank washing machines provided on board are in working order, are those described in the Procedures and Arrangements Manual and are installed in accordance with the approved plans;
(5) confirming that the wash water heating system, if required, is installed in accordance with the approved plans;
(6) confirming that the number and position of tank cleaning openings for portable machines are in accordance with the approved plans;
(7) confirming that the underwater discharge outlet(s) are in good condition and are in accordance with the approved plans;
(8) confirming that means are provided in the common discharge piping to isolate openings provided above the waterline;
(9) verifying by actual test that the discharge rate of the pumps, where a variable rate type is used, can be controlled as specified in the Procedures and Arrangements Manual;
(10) verifying that means for restricting the discharge flow of fixed rate pumps to the specified rates are still fitted;
(11) confirming that the ventilation equipment for residue removal is installed in accordance with the approved plan and is in working order;
(12) confirming that the heating system for solidifying and high viscosity substances is installed in accordance with the approved plan.

5.2 After a satisfactory renewal survey, the new Pollution Prevention Certificate for The Carriage of Noxious Liquid Substances in Bulk for Ships at Sea is to be issued.

Chapter 13 SURVEYS FOR ISSUE OF THE AIR POLLUTION PREVENTION CERTIFICATE FOR SHIPS AT SEA

1 General provisions

1.1 Surveys for issuing the Air Pollution Prevention Certificate for Ships at Sea are to be carried out as follows:
(1) initial surveys;
(2) annual surveys;
(3) intermediate surveys;
(4) renewal surveys.

2 Initial surveys

2.1 An initial survey is to consist of:
(1) examining the plans, including:
① examining the arrangements for systems using ozone-depleting substances;
② examining the arrangements for shipboard incinerators, where applicable.
(2) during construction and after installation, the survey is to include the following survey items and be in accordance with the approved plans:
① confirming that installation using ozone depleting substances is well fitted and operated and free from leaks of ozone-depleting substances;
② confirming that all engines which are required to be certified are surveyed and certified in accordance with section 2.2 of the IMO NO_x Technical Code,1997:
(a) if engine parameter check method is used, an onboard verification survey in accordance with section 6.2 of the IMO NO_x Technical Code,1997;
(b) if the simplified method is used, an onboard verification survey in accordance with section 6.3 of the IMO NO_x Technical Code,1997;
③ shipboard incinerators (installed on or after 1 September 2009):
(a) confirming that each incinerator is correctly installed and well operated;
(b) confirming that the manufacturer's name, incinerator model number/type and capacity in heat units per hour is permanently marked on the incinerator;
(3) an initial survey is also to consist of the examination of the validity of onboard certificates and documents:
documents listed in 3.1(1) of this Chapter, excluding the bunker delivery note specified in 3.1(1) ③.

2.2 After a satisfactory initial survey, the Air Pollution Prevention Certificate for Ships at Sea is to be issued.

3 Annual surveys

3.1 An annual survey is to consist of:
(1) examining the validity of relevant certificates and checking the following documents:
① confirm that there are Engine International Air Pollution Prevention (EIAPP) Certificates for each engine, required to be certified, as described in chapter 2.1 of the IMO NO_x Technical Code, 1997;
② confirm that there is on board an approved Technical File for each engine;
③ confirm that there are bunker delivery notes on board and the required fuel oil samples are kept;
④ confirm that there is, if required, an IMO Type Approval Certificate for each incinerator on board;
⑤ confirm that there is a record book of engine parameters for each engine required to be certified in the case where the engine parameter check method is used as a means of onboard NO_x verification;
⑥ confirm that there is an instruction manual for each incinerator installed on or after 1

September 2009.

(2) The annual survey for ozone-depleting substances is to consist of:

① confirming that no new installation or equipment containing ozone depleting substances have been fitted after 1 September 2009, except the installations and equipment as specified in 2.2.2 of Chapter 7 of PART FIVE of the Guidelines;

② confirming that no installations containing hydro-chlorofluocarbons (HCFCs) have been fitted after 1 January 2020;

③ examining externally any installation or equipment as far as practicable to ensure satisfactory maintenance and that there are no emissions of ozone-depleting substances.

(3) The annual survey for nitrogen oxide emissions from diesel engine is to consist of:

① if engine parameter check method is used:

(a) review engine documentation contained in the Technical File and the record book of engine parameters to check, as far as practicable, engine rating, duty and limitation/restrictions as given in the Technical File;

(b) confirm that the engine has not undergone any modifications or adjustments outside the options and ranges permitted in the Technical File since the last survey;

(c) conduct survey as detailed in the Technical File;

② if the simplified method is used:

(a) review engine documentation contained in the Technical File;

(b) confirm that the test procedure is approved by the Administration;

(c) confirm that the analysers, engine performance sensors, ambient condition measurement equipment and other test equipment are the correct type and have been calibrated in accordance with the IMO NO_x Technical Code, 1997;

(d) confirm that the correct test cycle, as defined in the engine's Technical File, is used for this onboard confirmation test measurements;

(e) ensure that a fuel sample is taken during the test and submitted for analysis;

(f) witness the test and confirm that a copy of the test report has been submitted for approval on completion of the test;

③ if the direct measurement and monitoring method is used:

(a) review engine documentation and Technical File, and check that the direct measurement monitoring manual has been approved by the Administration;

(b) the procedures to be checked in the direct measurement and monitoring method and the data obtained as given in the approved onboard monitoring manual are to be followed.

(4) The annual survey for sulphur oxides is to consist of:

① checking the bunker delivery note to verify that the fuel with satisfactory sulphur content has been used.

(5) The annual survey for incinerator is to consist of:

① confirming from an external examination that each incinerator is in a generally satisfactory condition and free from leaks of gas or smoke.

3.2 After a satisfactory completion of annual survey, the Air Pollution Prevention Certificate for Ships at Sea is to be endorsed.

4 Intermediate surveys

4.1 An intermediate survey is to consist of:

(1) the provisions of 3.1 of this Chapter.

4.2 After a satisfactory completion of intermediate survey, the Air Pollution Prevention Certificate for Ships at Sea is to be endorsed.

5 Renewal surveys

5.1 A renewal survey is to consist of:

(1) the provisions of 3.1 of this Chapter;

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

5.2 After a satisfactory completion of renewal survey, the new Air Pollution Prevention Certificate for Ships at Sea is to be issued.

Chapter 14 SURVEYS FOR ISSUE OF THE CERTIFICATE OF FITNESS FOR THE CARRIAGE OF DANGEROUS CHEMICALS IN BULK FOR SHIPS AT SEA

1 General provisions

1.1 Surveys for issuing the Certificate of Fitness for The Carriage of Dangerous Chemicals in Bulk for Ships at Sea are to be carried out in accordance with the relevant provisions of resolution A.1053(27), as amended by resolution A.1076(28).

Chapter 15 SURVEYS FOR ISSUE OF THE CERTIFICATE OF FITNESS FOR THE CARRIAGE OF LIQUEFIED GASES IN BULK FOR SHIPS AT SEA

1 General provisions

1.1 Surveys for issuing the Certificate of Fitness for the Carriage of Liquefied Gases in Bulk for Ships at Sea are to be carried out in accordance with the relevant provisions of resolution A.1053(27) as amended by resolution A.1076(28).

Chapter 16 SURVEYS FOR ISSUE OF THE PASSENGER QUOTA CERTIFICATE FOR SHIPS AT SEA

1 General provisions

1.1 Surveys for issuing the Passenger Quota Certificate for Ships at Sea are to be carried out as follows:
(1) initial surveys;
(2) additional surveys.

1.2 Surveys are to be carried out in accordance with the relevant requirements of 2 and 3 of this Chapter.

2 Initial surveys

2.1 An initial survey is to consist of:
(1) examining the plans;
(2) confirming that conditions for carrying passengers, classification of passenger ships/cabins, criterion of passenger quotas, public spaces and service spaces, sanitary and hospital accommodation, water supply, ventilation, lighting and heating appliances, bulwarks, guardrails and others comply with the requirements of the approved plans.

2.2 After a satisfactory initial survey, the Passenger Quota Certificate for Ships at Sea is to be issued.

3 Additional surveys

3.1 An additional survey is to be carried out when:
(1) the accommodations is undergoing modification of a major character or reconstruction; or
(2) where in exceptional cases or called for by an urgent task, and upon the application of the ship's owner, after a satisfactory inspection carried out on the ship, an additional number of provisional passengers may be granted.

3.2 The additional surveys are to be carried out in accordance with the provisions of 2 of this Chapter.

Chapter 17 SURVEYS FOR ISSUE OF THE FITNESS CERTIFICATE OF TRANSPORTING OF LIMITED AMOUNTS OF HAZARDOUS AND NOXIOUS LIQUID SUBSTANCES IN BULK ON OFFSHORE SUPPLY VESSELS

1 General provisions

1.1 Surveys for issuing the Fitness Certificate of Transporting of Limited Amounts of Hazardous and Noxious Liquid Substances in Bulk on Offshore Supply Vessels are to be carried out as follows:
(1) initial surveys;
(2) annual surveys;
(3) intermediate surveys;
(4) renewal surveys.

2 Initial surveys

2.1 An initial survey is to consist of:
(1) examining the plans and checking that all the required documentation has been placed on board the ship;
(2) during construction and after installation, the survey is to include the following survey items and be in accordance with the approved plans:

① confirming that tanks containing cargo or residues of cargo are suitably segregated from accommodation, service and machinery spaces and from drinking water and stores for human consumption, that cargo piping does not pass through any accommodation, service or machinery space other than cargo pump rooms or pump rooms and that cargoes are not to be carried in either the fore or the aft peak tank;

② examining the air intakes and openings into the accommodation, service and machinery spaces in relation to the cargo piping and vent systems and their entrances, air inlets and openings in relation to the cargo area;

③ examining the arrangements of the cargo pump rooms;

④ examining the accesses to spaces in the cargo area;

⑤ examining the bilge and ballast arrangements and confirming that pumps and pipelines are identified;

⑥ examining, when applicable, the bow or stern loading and unloading arrangements with particular reference to the air inlets and entrances to the accommodation, machinery and service spaces, the electrical equipment, firefighting arrangements and means of communication and testing the remote shut down for the cargo pumps;

⑦ confirming that the cargo tank types are arranged and installed in accordance with the approved plans, internally examining the cargo tanks, water ballast tanks and other spaces in the cargo area and pressure testing the boundaries;

⑧ examining the cargo transfer arrangements and confirming that any hoses are suitable for their intended purpose and, where appropriate, type-approved or marked with date of testing;

⑨ examining and testing any cargo heating and cooling systems;

⑩ confirming that the cargo tank vent systems have been installed in accordance with the approved plans;

⑪ confirming that high-level alarms, or overflow control systems or spill valves or other equivalent means provided to control possible liquid rising in the venting system, are operating satisfactorily;

⑫ confirming that suitable provision is made for drainage of vent lines, such as common venting system and that no shut-off valves or other means of stoppage, including spectacle or blank flanges, are fitted either to the individual vents or to the header, if the vents are combined or either above or below pressure/vacuum relief valves with closed vent systems;

⑬ confirming that suitable provisions are made for primary and secondary means (or alternative measures) for controlled tank venting;

⑭ examining the location of the vent outlets in respect of the height above the weather deck or the fore and aft gangway, from the nearest air intakes or openings to accommodation, service and machinery spaces and ignition sources and confirming that any high velocity vents are of the approved type;

⑮ examining the electrical installations and confirming that, when appropriate, special materials have been used and that the electrical equipment installed in hazardous locations, as permitted, is certified by a recognized authority for the cargoes to be carried;

⑯ confirming that independent cargo tanks are electrically bonded to the hull and that all gasketed cargo pipe joints and hose connections are electrically bonded;

⑰ examining the arrangements for the fire protection and fire extinction;

⑱ examining the fixed fire-fighting system for the cargo pump room and confirming that the installation tests have been satisfactorily completed and that its means of operation are clearly marked;

⑲ checking the deck foam system or dry powder system for the cargo area;

⑳ confirming that suitable portable fire extinguishing equipment for the cargoes to be carried is provided in the cargo area;

㉑ examining, and confirming the satisfactory operation of, the arrangements for the mechanical ventilation of spaces in the cargo area normally entered during cargo handling operations and checking in particular that:

(a) it may be controlled from outside the space;

(b) warning notices concerning its use have been posted;

(c) it is of the extraction type, with extraction from upper or lower part of the floor plates, unless the space houses electrical motors driving cargo pumps when it should be of the positive pressure type;

(d) the ducting does not pass through accommodation, machinery and service spaces and that the exhaust ducts are clear of the ventilation inlets and openings to such spaces;

(e) the electric motors driving ventilation fans are positioned outside the ventilation ducts and the ventilation fans and the ducts, in way of the fans only, are of non-sparking construction in hazardous locations;

㉒ examining, and confirming the satisfactory operation of, the arrangements for the mechanical ventilation of spaces normally not entered;

㉓ confirming that double bottoms, cofferdams, duct keels, pipe tunnels, hold spaces and other spaces where cargo may accumulate are capable of being efficiently ventilated to ensure a safe environment when entry into the space is necessary and that, when appropriate, permanent ducting is provided and any ventilation fans of non-sparking construction;

㉔ examining the intrinsically safe systems and circuits used for measurement, monitoring, control and communication purposes in all hazardous locations;

㉕ checking the provision of equipment for personnel protection and in particular that:

(a) suitable protective clothing is available for the crew engaged in loading and discharging operations and that suitable storage is provided;

(b) the required safety equipment and associated breathing apparatus and air supplies and, when appropriate, emergency-escape respiratory and eye protection, are provided and are properly stowed;

(c) medical first-aid equipment, including stretchers and oxygen resuscitation equipment are provided;

(d) arrangements have been made for the antidotes for the cargoes actually carried to be on board;

(e) decontamination arrangements and eyewashes are operational;

(f) the required gas detection instruments are on board and that arrangements have been made for the supply of the appropriate vapour detection tubes;

(g) the stowage for cargo samples is satisfactory;

㉖ confirming that the pumping and stripping systems are satisfactory and that portable

pipes or bends in sufficient number, if required, are on board;

㉗ conducting the water test for assessing the stripping quantity;

㉘ confirming that the tank washing machines provided on board are in working order, are those described in the Procedures and Arrangements Manual and are installed in accordance with the approved plans;

㉙ confirming that the wash water heating system, if required, is installed in accordance with the approved plans;

㉚ confirming that the number and position of tank cleaning openings for portable machines are in accordance with the approved plans;

㉛ confirming that the underwater discharge outlet(s) are in accordance with the approved plans;

㉜ confirming that means are provided in the common discharge piping to isolate openings provided above the waterline;

㉝ verifying by actual test that the discharge rate of the pumps, where a variable rate type is used, can be controlled as specified in the Procedures and Arrangements Manual;

㉞ verifying that means for restricting the dis charge flow of fixed rate pumps to the specified rates have been fitted;

㉟ confirming the satisfactory operation of the recording device, as fitted, and verifying by an actual flow test that it has an accuracy of ±15% or better;

㊱ confirming that the ventilation equipment for residue removal is installed in accordance with the approved plan and is in working order and that the pressure in the driving medium for portable fans for ventilation equipment for residue removal can be achieved to give the required fan capacity;

㊲ confirming that the heating system for solidifying and high viscosity substances is installed in accordance with the approved plan;

㊳ confirming that the cargo tanks are arranged and installed in accordance with the approved plans, confirming that the appropriate non-destructive and pressure testing are carried out (if liquefied nitrogen or liquefied CO_2 is carried);

㊴ examining during the initial cool down, loading and discharging of the first cargo, the overall performance of the cargo containment system and confirming that the system is in compliance with the design parameters (if liquefied nitrogen or liquefied CO_2 is carried);

㊵ examining the hull for cold spots following the first loaded voyage (if liquefied nitrogen or liquefied CO_2 is carried);

㊶ examining the cargo and process piping, including the expansion arrangements, insulation from the hull structure, pressure relief and drainage arrangements and carrying out a leak detection test (if liquefied nitrogen or liquefied CO_2 is carried);

㊷ examining the arrangements for the cargo pressure/temperature control including, when fitted, any refrigeration system and re-liquefaction system and confirming that any associated alarms are satisfactory (if liquefied nitrogen or liquefied CO_2 is carried);

㊸ examining other flanged joints on liquefied gas cargo main or cargo piping are provided with low-temperature resistant drip trays (if liquefied nitrogen or liquefied CO_2 is carried);

㊹ examining that the emergency stop valves are fitted on the outlet piping of the tank carrying liquefied gas and the remote shut down of the valves (if liquefied nitrogen or liquefied CO_2 is carried).

2.2 After a satisfactory initial survey, the Fitness Certificate of Transporting of Limited Amounts of Hazardous and Noxious Liquid Substances in Bulk on Offshore Supply Vessels is to be issued.

3 Annual surveys

3.1 An annual survey is to consist of:
(1) confirming that wheelhouse doors and windows, sidescuttles and windows in superstructure and deckhouse ends facing the cargo area are in a satisfactory condition;
(2) confirming that potential sources of ignition in or near the cargo pump room are eliminated, such as loose gear, combustible materials, etc., that there are no signs of undue leakage and that access ladders are in a satisfactory condition;
(3) confirming that removable pipe lengths or other approved equipment necessary for cargo separation are available in the pump room and are in a satisfactory condition;
(4) examining all pump room bulkheads for signs of cargo leakage or fractures and, in particular, the sealing arrangements of all penetrations of pump room bulkheads;
(5) confirming that the remote operation of the cargo pump bilge system is satisfactory;
(6) examining the bilge and ballast arrangements and confirming that pumps and pipelines are identified;
(7) confirming, when applicable, that the bow or stern loading and unloading arrangements are in order and testing the means of communication and the remote shut down for the cargo pumps;
(8) examining the cargo transfer arrangements and confirming that any hoses are suitable for their intended purpose and, where appropriate, type-approved or marked with date of testing;
(9) examining, when applicable, the cargo heating or cooling systems, including any sampling arrangements, and confirming that the means for measuring the temperature and associated alarms are operating satisfactorily;
(10) examining, as far as practicable, the cargo tank vent system, including the pressure/vacuum valves and secondary means to prevent over- or underpressure and devices to prevent the passage of flame;
(11) examining the gauging devices, high-level alarms and valves associated with overflow control;
(12) confirming that arrangements for sufficient gas to be carried or generated to compensate for normal losses, and that the means provided for monitoring ullage spaces, are satisfactory;
(13) confirming that arrangements are made for sufficient medium to be carried where drying agents are used on air inlets to cargo tanks;
(14) confirming that all electrical equipment in dangerous zones is suitable for such locations, is in satisfactory condition and has been properly maintained;
(15) examining the fixed fire-fighting system for the cargo pump room and the deck foam system for the cargo area and confirming that their means of operation are clearly marked;
(16) confirming that the condition of the portable fire extinguishing equipment for the cargoes to be carried in the cargo area is satisfactory;
(17) examining, as far as practicable, and confirming the satisfactory operation of, the arrangements for the ventilation of spaces normally entered during cargo handling operations and other spaces in the cargo area;
(18) confirming, as far as practicable, that the intrinsically safe systems and circuits used for measurement, monitoring, control and communication purposes in all hazardous locations are being properly maintained;
(19) examining the equipment for personnel protection and in particular that:
① the protective clothing for crew engaged in loading and discharging operations and its stowage is in a satisfactory condition;
② the required safety equipment and associated breathing apparatus and associated air supplies and, when appropriate, emergency-escape respiratory and eye protection, are in a satisfactory condition and are properly stowed;
③ medical first-aid equipment, including stretchers and oxygen resuscitation equipment are in a satisfactory condition;
④ arrangements have been made for the antidotes for the cargoes actually carried to be on board;
⑤ decontamination arrangements and eyewashes are operational;
⑥ the required gas detection instruments are on board and arrangements have been made for the supply of the appropriate vapour detection tubes;
⑦ the arrangements for the stowage of cargo samples are satisfactory;
(20) examining visually and confirming that the pumping and piping systems, including a

stripping system if fitted, and associated equipment remain as approved;
(21) examining visually the tank washing piping and confirming that the type, capacity, number, and arrangement of the tank washing machines are as approved;
(22) examining visually the wash water heating system;
(23) examining visually, as far as practicable, the underwater discharge arrangements;
(24) confirming that the means of controlling the rate of discharge of the residue is as approved;
(25) confirming that the flow rate indicating device is operable;
(26) confirming that the ventilation equipment for residue removal is as approved (where applicable);
(27) examining visually, as far as is accessible, the heating system required for solidifying and high viscosity substances (where applicable);
(28) confirming that any cargo tank high level alarms are operable;
(29) examining any additional requirements listed on the Pollution Prevention Certificate for The Carriage of Noxious Liquid Substances in Bulk for Ships at Sea;
(30) confirming, when appropriate, the satisfactory operation of the requisite arrangements to regain steering capability in the event of the prescribed single failure;
(31) confirming that the sealing arrangements at the gas domes are satisfactory (if liquefied nitrogen or liquefied CO_2 is carried);
(32) confirming that drip trays or deck insulation for cargo leakage is in order (if liquefied nitrogen or liquefied CO_2 is carried);
(33) examining the cargo and process piping, including the expansion arrangements, insulation from the hull structure, pressure relief and drainage arrangements (if liquefied nitrogen or liquefied CO_2 is carried);
(34) confirming that the cargo tank and interbarrier space pressure and relief valves, including safety systems and alarms, are satisfactory (if liquefied nitrogen or liquefied CO_2 is carried);
(35) examining the arrangements for the cargo pressure/temperature control including, when fitted, any refrigeration system and re-liquefaction system and confirming that any associated alarms are satisfactory (if liquefied nitrogen or liquefied CO_2 is carried).

3.2 Checking the validity of the relevant certificates and records and that the ship is provided with all necessary documents.

3.3 After a satisfactory annual survey, the Fitness Certificate of Transporting of Limited Amounts of Hazardous and Noxious Liquid Substances in Bulk on Offshore Supply Vessels is to be endorsed.

4 Intermediate surveys

4.1 An intermediate survey is to consist of:
(1) the provisions of 3.1 of this Chapter;
(2) examination of vent line drainage arrangements;
(3) confirmation, where applicable, that pipelines and independent cargo tanks are electrically bonded to the hull;
(4) generally examining the electrical equipment and cables in dangerous zones such as cargo pump rooms and areas adjacent to cargo tanks to check for defective equipment, fixtures and wiring. The insulation resistance of the circuits should be tested and in cases where a proper record of testing is maintained, consideration should be given to accepting recent readings;
(5) confirmation that spares are provided for cargo area mechanical ventilation fans;
(6) verifying from the cargo record book that the pumping and stripping arrangements have been emptying the tanks efficiently and are all in working order;
(7) confirming, if possible, that the discharge out let(s) are in good condition;
(8) confirming the satisfactory operation of the recording device, as fitted, and verifying by an actual flow test that it has an accuracy of ±15% or better;
(9) confirming that the ventilation equipment for residue removal is satisfactory and that the pressure in the driving medium for portable fans for ventilation, equipment for residue removal can be achieved to give the required fan capacity, where applicable;
(10) confirming that the heating arrangements, if any, for steel structures are satisfactory (if

liquefied nitrogen or liquefied CO_2 is carried).

4.2 After a satisfactory intermediate survey, the Fitness Certificate of Transporting of Limited Amounts of Hazardous and Noxious Liquid Substances in Bulk on Offshore Supply Vessels is to be endorsed.

5 Renewal surveys

5.1 A renewal survey is to consist of:
(1) the provisions of 4.1 of this Chapter;
(2) examining the insulation and means of support of the cargo tanks and confirming that the cargo containment system remains effective (if liquefied nitrogen or liquefied CO_2 is carried).

5.2 After a satisfactory renewal survey, the new Fitness Certificate of Transporting of Limited Amounts of Hazardous and Noxious Liquid Substances in Bulk on Offshore Supply Vessels is to be issued.

Appendix 1 List of Plans and Documents to be Submitted

1 General provisions

1.1 This Appendix gives a list of plans and documents to be submitted for approval (or for information) for the purpose of obtaining the statutory certificates. The plans and documents may be different for each ship but the list as a minimum is to be contained.

1.2 Plans and documents in relation to design of the ship's strength, structure and arrangement, structural material, structural scantling, main and auxiliary machinery, boilers and pressure vessels, electrical equipment may be submitted for approval in accordance with the plans as specified by relevant CCS rules in addition to the provisions of the Guidelines.

1.3 Where any repetition of above-mentioned plans and documents to be submitted occurs, only one copy is required.

2 List of Plans and Documents to be Submitted for Issuing Seaworthiness Certificate for Cargo Ships at Sea

2.1 Hull

(1) General arrangement;
(2) Calculations of intact stability;
(3) Calculations of damage stability (if required);
(4) Fire zone division plan;
(5) ship's insulation arrangement;
(6) ship's deck covering arrangement;
(7) typical nodal point plan of fire structure;
(8) Fire control plan (for cargo ships and tankers of less than 500 gross tonnage, the arrangement of firefighting appliances may be submitted as alternative);
(9) Arrangement of ship's ventilation and air-conditioning system;
(10) Arrangement of life-saving appliances;
(11) Arrangement of signal equipment;
(12) Arrangement of pilot ladders (if any);
(13) Arrangement of doors and windows;
(14) Damage control plan (if required);
(15) Arrangement of lashing of deck cargoes;
(16) Arrangement, calculations and instructions concerning the operation of cross-flooding arrangements (if any);
(17) Lines and offsets (for information);
(18) Capacity plan (for information);
(19) Hydrostatic curve or data (for information);
(20) Cross curves or data (for information);
(21) Tonnage calculations (for information);
(22) Arrangement and operating manual of the connector of pusher tug-barge combination;
(23) Operating manual for semi-submerged operation of semi-submersible vessel;
(24) Arrangement of emergency towing arrangements (if required).

2.2 Machinery

(1) Arrangement of engine room and boiler room;
(2) Bilge piping and ballast piping;
(3) Fuel oil systems for main and auxiliary engines and boilers;
(4) Lubricating oil piping systems for main and auxiliary engines;
(5) Cooling water piping systems for main and auxiliary engines;
(6) Compressed air piping system;
(7) Steam piping system (where applicable);
(8) Exhaust piping systems for main and auxiliary engines and boilers;
(9) Ventilation piping systems for engine room;
(10) Electro-hydraulic system for steering gear;
(11) Water fire main system;

(12) Fixed fire-extinguishing system;
(13) Additional requirements for oil tankers:
① Cargo piping systems;
② Bilge piping systems of cargo pump rooms and cofferdams;
③ Arrangement of vent system;
④ Ventilation systems of cargo pump rooms;
⑤ Fixed deck foam system;
⑥ Inert gas system (where applicable).

2.3 Electrical

(1) Diagrams of power system;
(2) Arrangement of main electrical power equipment;
(3) Schematic diagrams of main lighting;
(4) Arrangement of main lighting;
(5) Schematic diagrams of emergency lighting and temporary emergency lighting;
(6) Arrangement of emergency lighting and temporary emergency lighting;
(7) Schematic diagrams of internal communication system, which is to include public address, engine room telegraph, commanding telephone and engineers' alarm systems;
(8) Arrangement of internal communication system, which is to include public address, engine room telegraph, commanding telephone and engineers' alarm systems;
(9) Plan of internal alarm system, which is to include fire detection and fire alarm, pre-warnings for the release of extinguishing media, general emergency alarm and watertight door closing alarm systems;
(10) Arrangement of internal alarm system, which is to include fire detection and fire alarm, pre-warnings for the release of extinguishing media, general emergency alarm and watertight door closing alarm systems;
(11) Plan of division of dangerous zones (applicable to oil tankers or ships carrying explosive dangerous cargoes);
(12) Schematic diagrams of navigation lights and signal lights;
(13) Schematic diagrams of electrical power-driven whistles;
(14) Schematic diagrams of navigational equipment;
(15) Arrangement of navigational equipment;
(16) Plan of radio-communication system;
(17) Arrangement of radio-communication equipment;
(18) Arrangement of antenna;
(19) Capacity calculations of reserve source of energy.

2.4 Periodically unattended machinery spaces

(1) Items of safety system;
(2) Plans of automatic and remote control systems of main and auxiliary engines;
(3) List of monitored and alarm points, which is to include displays of alarm signals;
(4) Schematic diagrams of power supply to automated system.

3 List of Plans and Documents to be Submitted for Issuing Load Line Certificate for Ships at Sea

3.1 Freeboard calculations;
3.2 Load line mark;
3.3 Arrangement of weathertight doors and windows;
3.4 Arrangement and structure of side shell doors (where applicable);
3.5 Arrangements of bow and stern doors (where applicable);
3.6 Arrangement of ventilators (natural ventilation, mechanical ventilation, air conditioning);
3.7 Arrangement of guardrails, handrails, safety passageways and safety lines;
3.8 Arrangement of gangways (for type A ships);
3.9 Arrangement of small hatchways;
3.10 Structure of cargo hatch coamings;
3.11 Arrangement and structure of cargo hatch covers (including the strength calculations);

3.12 Structure of engine casings;
3.13 Arrangement of air pipes;
3.14 Arrangement of scuppers, inlets and discharges;
3.15 Arrangement of freeing ports;
3.16 Arrangement of timber loading;
3.17 Calculations of buoyancy reserve (for dynamically supported craft, semi-submersible vessel);
3.18 Calculations of ship's strength including longitudinal strength and scantling draught (for information);
3.19 Calculations of intact stability (for information);
3.20 Calculations of damage stability (for information);
3.21 General arrangement (for information);
3.22 Lines (for information);
3.23 Construction profile (for information);
3.24 Transverse section (for information);
3.25 Hydrostatic curve or data (for information);
3.26 Instructions for operating load lines of semi-submersible vessel (for information);
3.27 Maximum submerged depth draught mark (semi-submersible vessel).

4 List of Plans and Documents to be Submitted for Issuing Oil Pollution Prevention Certificate for Ships at Sea

4.1 Arrangement of bilge processing and control systems in machinery spaces;
4.2 Arrangement of oil-water ballast isolating appliances (if any) and systems in oil fuel tanks;
4.3 Arrangement of sludge tanks, including their capacity and that of the sludge pump and the standard discharge connections;
4.4 Arrangement and systems of oily-water tanks, including the calculations of the capacity in oil tankers;
4.5 Drainage piping systems of oily-water and ballast water in oil tankers;
4.6 Size and arrangement of cargo tanks of oil tankers, including damage assumptions, hypothetical outflow and size of cargo tanks;
4.7 Arrangement of operation appliances in special zones of oil tankers;
4.8 Shipboard oil pollution emergency plan.

5 List of Plans and Documents to be Submitted for Issuing Seaworthiness Certificate for Passenger Ships at Sea

5.1 Hull

(1) General arrangement;
(2) Calculations of intact stability;
(3) Calculations of damage stability;
(4) Fire zone division plan;
(5) ship's insulation arrangement;
(6) ship's deck covering arrangement;
(7) typical nodal point plan of fire structure;
(8) Fire control plan;
(9) Arrangement of ship's ventilation and air-conditioning system;
(10) Arrangement of life-saving appliances;
(11) Arrangement of signal equipment;
(12) Arrangement of pilot ladders (if any);
(13) Arrangement of doors and windows;
(14) Sea damage control plan;
(15) Lines and offsets (for information);
(16) Capacity plan (for information);
(17) Hydrostatic curve or data (for information);
(18) Cross curves or data (for information);
(19) Tonnage calculations (for information);

(20) Arrangement of passenger evacuation;
(21) Master's decision supporting system (for information).

5.2 Machinery

(1) Arrangement of engine room and boiler room;
(2) Bilge piping and ballast piping;
(3) Fuel oil systems for main and auxiliary engines and boilers;
(4) Lubricating oil piping systems for main and auxiliary engines;
(5) Cooling water piping systems for main and auxiliary engines;
(6) Compressed air piping system;
(7) Steam piping system (where applicable);
(8) Exhaust piping systems for main and auxiliary engines and boilers;
(9) Ventilation piping systems for engine room;
(10) Electro-hydraulic system for steering gear;
(11) Water fire main system;
(12) Fixed fire-extinguishing system.

5.3 Electrical

(1) Diagrams of power system;
(2) Arrangement of main electrical power equipment;
(3) Schematic diagrams of main lighting;
(4) Arrangement of main lighting;
(5) Schematic diagrams of emergency lighting and temporary emergency lighting;
(6) Arrangement of emergency lighting and temporary emergency lighting;
(7) Schematic diagrams of additional emergency lighting;
(8) Arrangement of additional emergency lighting;
(9) Schematic diagrams of internal communication system, which is to include public address, engine room telegraph, commanding telephone and engineers' alarm systems;
(10) Arrangement of internal communication system, which is to include public address, engine room telegraph, commanding telephone and engineers' alarm systems;
(11) Plan of internal alarm system, which is to include fire detection and fire alarm, pre-warnings for the release of extinguishing media, general emergency alarm and watertight door closing alarm systems;
(12) Arrangement of internal alarm system, which is to include fire detection and fire alarm, pre-warnings for the release of extinguishing media, general emergency alarm and watertight door closing alarm systems;
(13) Arrangement of main cable runs;
(14) Schematic diagrams of navigation lights and signal lights;
(15) Schematic diagrams of electrical power-driven whistles;
(16) Schematic diagrams of navigational equipment;
(17) Arrangement of navigational equipment;
(18) Plan of radio-communication system;
(19) Arrangement of radio-communication equipment;
(20) Arrangement of antenna;
(21) Capacity calculations of reserve source of energy.

5.4 Periodically unattended machinery spaces

(1) Items of safety system;
(2) Plans of automatic and remote control systems of main and auxiliary engines;
(3) List of monitored and alarm points, which is to include displays of alarm signals;
(4) Schematic diagrams of power supply to automated system.

6 List of Plans and Documents to be Submitted for Issuing Sewage Pollution Prevention Certificate for Ships at Sea

6.1 Schematic diagram of sewage, including standard discharge connection;
6.2 Instruction of processing arrangements for sewage pollution prevention (for information).

7 List of Plans and Documents to be Submitted for Issuing Floating Dock Safety Certificate for Ships at Sea

7.1 Hull

(1) General arrangement;
(2) Principal transverse sections;
(3) Construction profile, including structural plan of caissons or pontoons, wing walls, top deck, safety deck and, for pontoon type docks, pontoon boundary plating and the plating across the base of the wing walls in way of the pontoon gaps;
(4) Scantlings and section modulus calculations according to the Rules (including strength of longitudinal, transverse and local areas);
(5) Stability and freeboard calculations, and plan of working and maximum submerged draught mark;
(6) Welding, including type and size of welds;
(7) Full details of the type and proposed arrangement of deflection monitoring equipment;
(8) Pedestals and stanchion of the crane;
(9) Arrangement of ballast, fresh water and oil tanks (including their capacity tables);
(10) Dock lightweight and center of gravity calculations (where applicable);
(11) Hydrostatic curves and sinkage curves (for information);
(12) Structural plans of deck room and control house (for information);
(13) Specifications of hull and equipment (for information);
(14) Operating manual (for information).

7.2 Machinery

(1) Arrangement of machinery spaces and pump rooms;
(2) Schematic drawing of inlets and overboard discharge piping systems of pontoons;
(3) Arrangement of bilge piping;
(4) Arrangement of air pipes, sounding pipes and overflow pipes;
(5) Oil fuel piping system for auxiliary engines;
(6) Lubricating oil piping system for auxiliary engines;
(7) Cooling water piping system for auxiliary engines;
(8) Arrangement of scuppers and overboard discharge pipes and fittings;
(9) Arrangement of exhaust pipes for auxiliary engines;
(10) Arrangement of ventilation system for machinery spaces;
(11) Schematic drawing of hydraulic system;
(12) Arrangement of compressed air piping;
(13) Specifications of machinery (for information);
(14) List of machinery (for information).

7.3 Electrical installations

(1) Electrical loading calculations;
(2) Short-circuit current calculations of electrical system;
(3) Electrical power distribution diagrams;
(4) Arrangement of electrical power equipment;
(5) Schematic diagrams and arrangement of lighting;
(6) Schematic diagrams and arrangement of internal communication systems;
(7) Diagrams of switchboard;
(8) Specifications of electrical installations (for information).

7.4 Fire protection, detection and extinction

(1) Fire zones and compartmentation bulkheads and decks and specifications of material employed;
(2) Construction of fire protection bulkheads, decks;
(3) Ventilation systems including dampers and their control positions;
(4) Arrangement of fixed fire-extinguishing systems with calculation for quantities of fire-extinguishing media used;

(5) Arrangement and calculations of water fire-extinguishing system;
(6) Arrangement of fixed fire detection and fire alarm systems;
(7) Fire control plan (including arrangement of all fire-fighting systems and appliances).

8 List of Plans and Documents to be Submitted for Issuing Certificate of Fitness for Ships Carrying Dangerous Goods at Sea

8.1 List of classes of dangerous goods carried by the ship and spaces or areas intended for the carriage of dangerous goods;
8.2 Water supply system contains remote arrangements, capacity and arrangement of fire pumps;
8.3 Arrangement of electrical equipment and cabling within enclosed cargo spaces;
8.4 Arrangement of fire detection system within enclosed cargo spaces;
8.5 Arrangement of ventilation within enclosed cargo spaces;
8.6 Arrangement of ventilation of enclosed cargo spaces carrying flammable liquids with the flashpoint less than 23℃ in packaged form and flammable liquids and dangerous goods in solid form in bulk which may give off explosive gas atmospheres;
8.7 Arrangement of bilge systems of enclosed spaces carrying flammable liquids and toxic liquids;
8.8 Arrangement of fire protection of enclosed cargo spaces;
8.9 Arrangement of fire-extinguishing appliances for the carriage of dangerous goods of exposed cargo area and open ro-ro cargo space or cargo space not carrying dangerous goods;
8.10 Arrangement and relevant information of fixed pressure water-spraying system for manual operation fitted for each open ro-ro space having a deck above it and each space deemed to be a closed ro-ro space not capable of being sealed;
8.11 Information of personnel protection equipment;
8.12 Information on requirements for separation of ro-ro spaces.

9 List of Plans and Documents to be Submitted for Issuing Certificate of Crew Accommodation Equipment for Ships at Sea

9.1 Arrangement of crew accommodation;
9.2 Crew accommodation equipment specification (including the arrangement of purpose, scantling, furniture, ventilation, heating, sanitary facilities and water supply system of crew accommodation).

10 List of Plans and Documents to be Submitted for Issuing Safety Certificate for Special Purpose Ships at Sea

10.1 For special purpose ships carrying not more than 60 people, the List of Plans and Documents to be Submitted for Issuing Safety Certificate for Special Purpose Ships at Sea is the same as 2 of this Appendix.
10.2 For special purpose ships carrying more than 60 people, the List of Plans and Documents to be Submitted for Issuing Safety Certificate for Special Purpose Ships at Sea is the same as 5 of this Appendix.

11 List of Plans and Documents to be Submitted for Issuing Pollution Prevention Certificate for the Carriage of Noxious Liquid Substances in Bulk for Ships at Sea

11.1 list of noxious liquid substances intended to be carried by the ship;
11.2 Arrangement of pumping system;
11.3 Arrangement of stripping system;
11.4 Arrangement of the tank washing system and equipment;
11.5 Arrangement of underwater discharge arrangements;
11.6 Arrangement of the ventilation equipment for residue removal;
11.7 Arrangement of the heating system for solidifying and high viscosity substances;
11.8 Procedures and Arrangements Manual.

12 List of Plans and Documents to be Submitted for Issuing Air Pollution Prevention Certificate for Ships at Sea

12.1 Arrangements for systems using ozone-depleting substances;
12.2 Arrangements for shipboard incinerators, where applicable.

13 List of Plans and Documents to be Submitted for Issuing Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk for Ships at Sea

13.1 the list of products that it is intended that the ship will be permitted to carry;
13.2 the plans and documents for the ship type, location of the cargo tanks, cargo containment, materials of construction, cargo temperature control, cargo tank vent systems, environmental control, electrical installations, fire protection and fire extinction, instrumentation and the provision, specification and stowage of the equipment for personnel protection;
13.3 stability (including intact stability and damage stability) and freeboard information, damage control plans;
13.4 the plans for discharges below the bulkhead deck;
13.5 the plans for the ship arrangements;
13.6 the plans for the cargo transfer;
13.7 the plans for the mechanical ventilation in the cargo area;
13.8 the pumping system;
13.9 the stripping system;
13.10 the tank washing system and equipment;
13.11 the underwater discharge arrangements;
13.12 the ventilation equipment for residue removal;
13.13 the heating system for solidifying and high viscosity substances;
13.14 the Procedures and Arrangements Manual;
13.15 Shipboard Marine Pollution Emergency Plan for Noxious Liquid Substances.

14 List of Plans and Documents to be Submitted for Issuing Certificate of Fitness for the Carriage of Liquefied Gases in Bulk for Ships at Sea

14.1 the list of products that it is intended that the ship will be permitted to carry;
14.2 plans for the ship type, cargo containment, control of vapor space within cargo tanks, vapour detection, gauging, personnel protection, filling limits for cargo tanks and other special requirements;
14.3 plans for stability (including intact stability and damage stability) and freeboard information, discharges below the bulkhead deck and survival capability;
14.4 plans for the ship arrangements;
14.5 plans for the process pressure vessels and liquid, vapour and pressure piping systems;
14.6 plans for the Cargo pressure/temperature control;
14.7 plans for the cargo tank vent systems;
14.8 plans for the environmental control;
14.9 plans for the electrical installations;
14.10 plans for the fire protection and fire extinction;
14.11 plans for the mechanical ventilation in the cargo area;
14.12 plans for the instrumentation (gauging, gas detection);
14.13 plans of piping for use of cargo as fuel, where applicable.

15 List of Plans and Documents to be Submitted for Issuing Passenger Quota Certificate for Ships at Sea

15.1 General arrangement;
15.2 Arrangement of passenger accommodation on decks;
15.3 stability calculations;
15.4 provision of fire-fighting equipment and life-saving appliances.